

WATER-QUALITY DATA FOR THE OHIO RIVER FROM NEW CUMBERLAND DAM TO PIKE ISLAND DAM, WEST VIRGINIA AND OHIO, MAY-OCTOBER 1993

By Kimberly F. Miller, Terence Messinger, Marcus C. Waldron, and Carl W. Faulkenburg

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WATER-QUALITY DATA FOR THE OHIO RIVER FROM NEW CUMBERLAND DAM TO PIKE ISLAND DAM, WEST VIRGINIA AND OHIO, MAY-OCTOBER 1993

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ABSTRACT

This report contains water-quality data for the Ohio River from river mile 51.1 (3.3 miles upstream from New Cumberland Dam) to river mile 84.0 (0.2 mile upstream from Pike Island Dam) that were collected during the summer and fall of 1993. The data were collected to establish the water quality of the Ohio River and to use in assessing the proposed effects of hydropower development on the water quality of the Ohio River. Water quality was determined by a combination of synoptic field measurements, laboratory analyses, and continuous-record monitoring. Water-quality characteristics were measured in the field along a longitudinal transect with 18 mid-channel sampling sites; cross-sectional transects of water-quality measurements were made at 5 of these sites. Water quality also was measured at two sites located on the back-channel (Ohio) side of Browns Island and at one site near the middle of the wingwall of New Cumberland Dam. At each longitudinal-transect and back-channel sampling site, measurements of specific conductance, pH, water temperature, and dissolved oxygen concentration were made at four depths (at the surface, about 3.0 ft below the surface, middle of the water column, and near the bottom of the river). An exception to this protocol was used to make the May and June measurements, which were made at three depths (about 3.3 ft below the surface, middle of the water column, and near the bottom). Cross-sectional transects and the site near the middle of the wingwall of New Cumberland Dam consisted of three to four detailed vertical profiles of the same characteristics. On most sampling dates, water samples were collected from four depths at the mid-channel vertical profile in each cross-sectional transect and were analyzed for concentrations of phytoplankton chlorophyll *a* and chlorophyll *b*. Estimates of the depth of light penetration (Secchi disk transparency) were made at all phytoplankton-pigment-sampling locations whenever light and river-surface conditions were appropriate. Synoptic sampling usually was completed in 12 hours or less and was repeated nine times between May and October 29, 1993.

Continuous-record monitoring of water quality consisted of hourly measurements of specific conductance, pH, water temperature, and dissolved oxygen concentration that were recorded at a depth of 6.6 feet at sites upstream and downstream of New Cumberland Dam.

The upstream monitor was suspended from a Coast Guard buoy located approximately in the middle of the navigation channel 0.2 mi upstream from the dam. The downstream monitor was located at the end of the downstream wingwall on the riverside, about 1,200 feet from the dam. Continuous-recording monitors were operated from May through October 1993.

INTRODUCTION

The U.S. Army Corps of Engineers has constructed and operates more than 60 lock-and-dam facilities in the Ohio River Basin, with 20 facilities on the Ohio River mainstem and the rest on major tributaries in the basin (U.S. Army Corps of Engineers, 1990). The lock-and-dam structures form a system of contiguous navigation pools that ensure year-round navigation on the river. Many dams also contain hydroelectric generators that were installed after construction of the navigation structures. In 1989, the Federal Energy Regulatory Commission (FERC) issued licenses for retrofitting of hydropower at 19 dams in the upper Ohio River Basin, which includes the Allegheny and Monongahela Rivers, and the Ohio River mainstem from Pittsburgh, Pa., to Huntington, W. Va. (fig. 1). However, many of these licenses have since been surrendered, indicating that perhaps the original licensees do not intend to develop projects.

Some dams scheduled for hydropower development currently are thought to improve the water quality of the river by increasing the rate of gas transfer from the atmosphere to the water (Federal Energy Regulatory Commission, 1988). Water from deep, slow-moving upstream pools is mixed as it passes over or through navigation structures, thereby increasing the amount of surface area in contact with the atmosphere. If the dissolved oxygen (DO) concentration is less than the saturation concentration, the potential exists for absorption of oxygen into the water, a process known as reaeration.

The amount of oxygen added to the water by reaeration at a dam depends, in part, on flow conditions of the river and design characteristics of

the structure (Avery and Novak, 1978). Dams on the upper Ohio River downstream from Wheeling, W. Va., are gated structures that discharge several feet below the surface of the downstream pool and provide little reaeration (Federal Energy Regulatory Commission, 1988). Other dams, including overflow dams and gated dams with discharge above the downstream pool level, are more efficient aerators and can be important sources of DO during low-flow conditions of summer and early fall. Dams upstream from Wheeling are of the latter type. Hydropower operation at these surface-discharging structures will divert riverflow through underwater intakes where the opportunity for atmospheric gas exchange is smaller. For dams upstream from Wheeling, the loss of reaeration at low flows, combined with the oxygen consumption associated with waste assimilation and the failure of other oxygen-generating processes such as algal photosynthesis, could reduce DO concentrations below acceptable levels and diminish the waste-assimilation capacity of the river (West Virginia Department of Natural Resources, 1989).

A water-quality monitoring program was begun in 1992 in cooperation with the city of New Martinsville, W. Va., and was designed, in part, to address license requirements for development of hydropower at New Cumberland Dam (FERC Project No. 6901). This dam is located upstream from Wheeling, W. Va., and is the surface-discharge type dam. The program uses continuous-record monitoring and synoptic sampling of water-quality characteristics near the dam and throughout the downstream navigation pool during the summer and fall to provide basic hydrologic and ecologic data on the possible environmental effects of hydropower operation. Synoptic surveys, where water-quality characteristics are analyzed quickly at many locations and depths, have been recommended for incorporation into water-quality impact assessments of proposed hydropower projects at dams and other control structures (Gulliver and others, 1990; Daniil and others, 1991). The study described in this report was conducted in the Pike Island navigation pool, a 33-mi section of the Ohio River that begins at river mile 51.1 (3.3 mi upstream from New Cumberland Dam) and

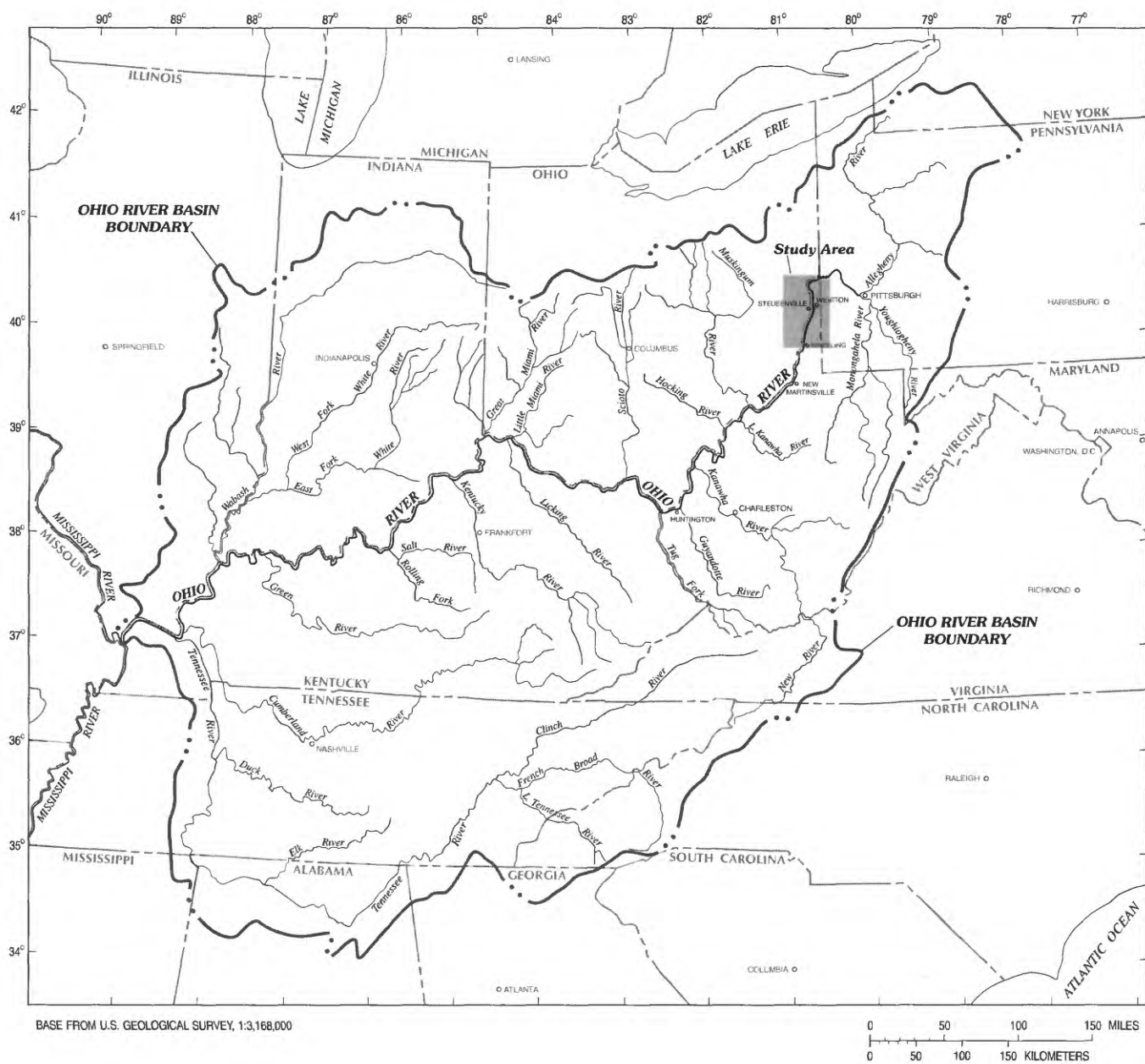


Figure 1. Ohio River drainage basin.

extends downstream to river mile 84.0 (0.2 mi upstream from Pike Island Dam) (fig. 2).

Purpose and Scope

This report presents data collected in 1993 on the spatial and temporal distribution of selected water-quality characteristics in the Pike Island Pool of the Ohio River (the reach of river from New Cumberland Dam at the upstream end to Pike Island Dam at the downstream end). This report

contains water-quality data of the Pike Island Pool determined by continuous-record monitoring of conditions near New Cumberland Dam and by repeated synoptic sampling of the entire 33-mi pool. Measurements of specific conductance, pH, water temperature, and DO concentration were recorded by the continuous-recording monitors and were made at each sampling site in the network during synoptic sampling periods. Water samples also were collected from four depths at various

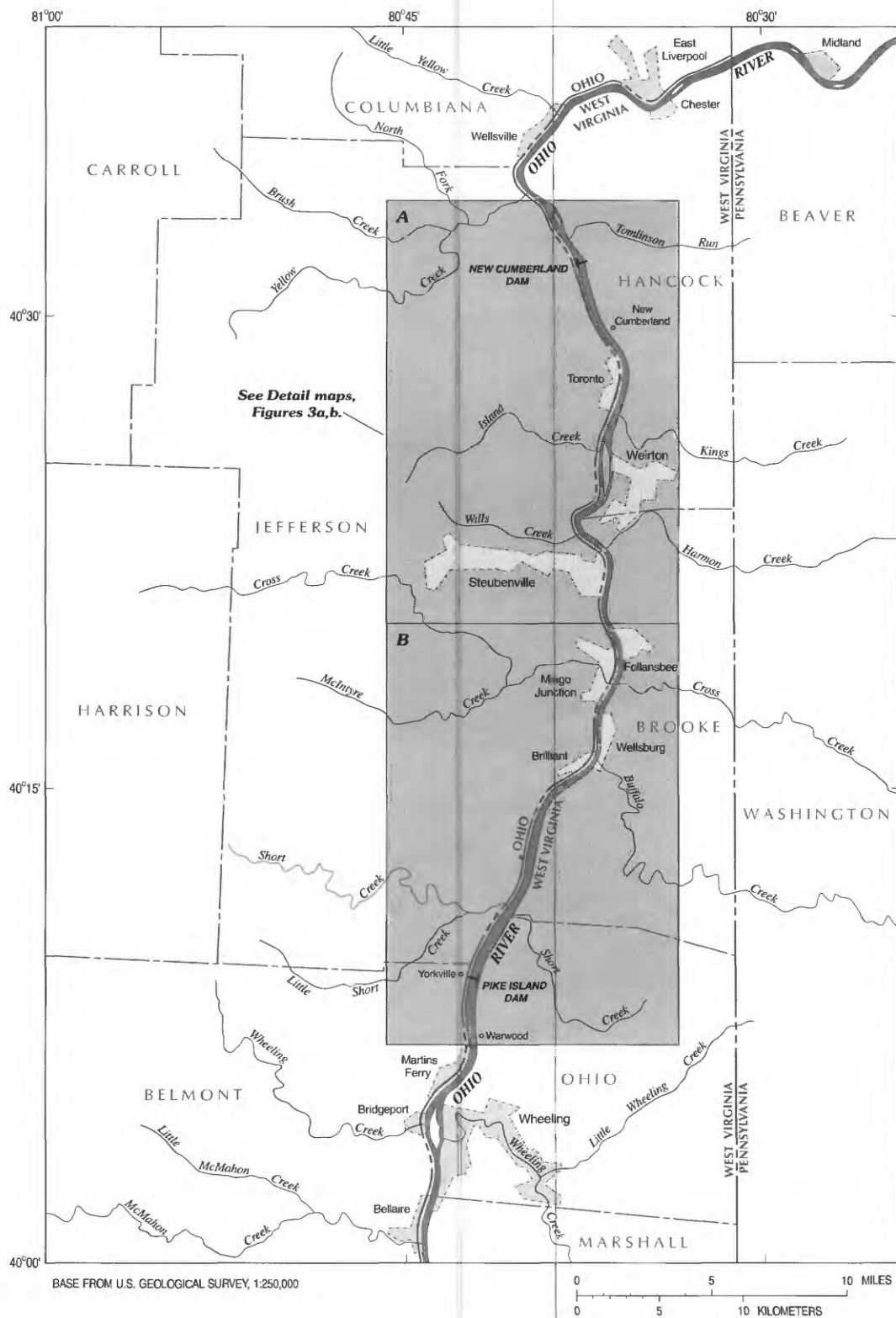


Figure 2. Ohio River study reach.

sampling sites and were randomly analyzed for photosynthetic-pigment concentrations. In addition to these measurements, estimates of the depth of light penetration (Secchi disk transparency) were made at pigment-sampling locations whenever light and river-surface conditions were appropriate. Water-quality measurements were made once in May and June, twice in July and August, once in September, and twice in October.

Description of Study Area

Drainage area for the Ohio River at Pike Island Dam is 24,700 mi². Most of the drainage basin up to the dam consists of narrow flood plains and deeply incised tributary valleys. The basin is underlain by bedrock that consists of shale, sandstone, siltstone, limestone, and coal (West Virginia Department of Natural Resources, 1988). The average width of the Pike Island pool is 1,338 ft. The average bottom slope is 0.4 ft/mi; the average depth of the pool is 19 ft (Ohio River Valley Water Sanitation Commission, 1988).

Streamflow in the upper Ohio River Basin is related to precipitation and to the balance of precipitation and evapotranspiration. The climate of the region is temperate with distinct seasonal changes. Mean minimum air temperatures (-7.3°C) are generally during January; mean maximum air temperatures (28°C) are generally during July. Average annual air temperature is about 12°C. Annual precipitation in the basin ranges from 20 to 72 in., with heaviest amounts occurring in June or July and minimum amounts occurring in October (West Virginia Department of Natural Resources, 1988). The U.S. Army Corps of Engineers has constructed a system of multipurpose reservoirs on four main tributaries for flood control. These reservoirs also are used to augment flow and maintain navigation during critical periods.

Land use in the study area is about 15 percent cropland, 9 percent pasture, 46 percent forest, 6 percent urban, and 24 percent other uses (Ohio River Valley Water Sanitation Commission, 1988). Major urban and industrial centers in the reach include Toronto, Ohio, Wierdon, W. Va., Steubenville, Ohio, Follansbee, W. Va., Mingo

Junction, Ohio, and Wellsburg, W. Va. (fig. 2). The reach includes three municipal drinking-water intakes (Toronto, river mile 59.1; Wierdon, river mile 65.1; and Steubenville, river mile 65.2) and 23 industrial intakes. The States of West Virginia and Ohio have issued permits for 13 municipal and 34 industrial effluent discharges in the study reach. Industrial activity along the reach is associated mainly with steel manufacturing, coal preparation, and coal-fired electric-power generation. This section of the river is also used to transport coal, petroleum products, chemicals, and other materials. Seven river terminals handling petroleum products and hazardous chemicals are located in the study reach (Ohio River Valley Water Sanitation Commission, 1988).

DATA-COLLECTION METHODS

Water quality of the Pike Island pool was determined by a combination of synoptic field measurements, laboratory analyses, and continuous-record monitoring. Synoptic field measurements were made on May 26, June 8, July 14, July 27, August 10, August 24, September 21, October 5, and October 28-29, 1993. Two continuous-recording monitors were in operation at New Cumberland Dam from May 11 through October 28, 1993.

The field-data-collection network used for synoptic sampling consisted of a longitudinal transect with 18 mid-channel sampling sites; cross-sectional transects of water-quality characteristics were made at 5 of these sites. Water quality also was measured at two sites located on the back-channel (Ohio) side of Browns Island and at one site near the middle of the wingwall of New Cumberland Dam. At each longitudinal-transect and back-channel sampling site, measurements of specific conductance, pH, water temperature, and dissolved oxygen concentration were made at four depths (at the surface, about 3.0 ft below the surface, middle of the water column, and near the bottom of the river). An exception to this protocol was used to make the May and June measurements. May measurements were made at three depths (about 3.3 ft below the surface, middle of the water column, and near the bottom of the river). June measurements were made at four depths (at the

surface, about 3.3 ft below the surface, middle of the water column, and near the bottom of the river). Cross-sectional transects consisted of three to four detailed vertical profiles of the same characteristics. Also, a detailed vertical profile of the above parameters was obtained at the sampling site near the middle of the wingwall. Water samples usually were collected at the mid-channel vertical profile in each cross-sectional transect and were randomly analyzed for photosynthetic-pigment concentrations as measures of the abundance of phytoplankton. Estimates of the depth of light penetration (Secchi disk transparency) were made at pigment-sampling locations whenever light and river-surface conditions were appropriate. Synoptic sampling of the entire network usually was completed in 12 hours or less.

Sampling Cross-Sectional Transects

During each sampling period, water quality was measured in cross-sectional transects at five locations shown in figures 3a and 3b. Two cross sections were located near New Cumberland Dam, at the ends of the upstream and downstream wingwalls (river miles 54.0 and 54.8, respectively) (fig. 3a). Additional cross-sections were located 4.9 mi upstream from the industrial complex at Steubenville, Ohio (river mile 60.3) (fig. 3a) and 6.2 mi downstream from Steubenville (river mile 71.4) (fig. 3b). One cross-sectional transect was located at Pike Island Dam at the end of the upstream wingwall (river mile 84.0) (fig. 3b).

The downstream cross-sectional transect at New Cumberland Dam and the single cross-sectional transect at Pike Island Dam consisted of four vertical profiles of specific conductance, pH, water temperature, and DO concentration measurements. Positions for the vertical profiles at the downstream cross-sectional transect at New Cumberland Dam were located by estimating 25, 50, 75 and 100 percent of the distance from the left bank to edge of the wingwall. Positions for the vertical profiles at the single cross-sectional transect at Pike Island Dam were located at

approximately 1 ft from the edge of the wingwall and by estimating 25, 50, and 75 percent of the distance from the edge of the wingwall to the right bank. Both were sampled in random order to minimize effects of diel changes (changes associated with a 24-hour period which includes both day and night). Cross-sectional transects at other locations consisted of three vertical profiles, with positions determined by estimating 25, 50, and 75 percent of the total width of the river. Weather and river-surface conditions occasionally prevented completion of all vertical profiles in a transect. Vertical-profile measurements were made at the surface, at 3.0 ft, and 5.0 ft, and then at depth intervals of 5.0 ft, using a portable, multiparameter water-quality monitoring system (Hydrolab¹ Surveyor 3). Measuring was begun either at the bottom of the river or at the surface. The May and June sampling events deviated from this method in that no surface measurements were made for the May sampling event, and during both the May and June sampling events the first 3 meters were measured followed by depth intervals of approximately 6.6 ft. Barometric pressure was recorded before making each set of field-data measurements by use of a Thommen TX altimeter-barometer.

Sampling Longitudinal Transects

Longitudinal transects consisted of making measurements of specific conductance, pH, water temperature, and DO concentration at four depths (at the surface, about 3.0 ft below the surface, middle of the water column, and near the bottom of the river) at 18 mid-channel sampling sites distributed throughout the Pike Island pool. Two additional sampling sites were located on the back-channel (Ohio) side of Browns Island. A sampling site also was near the middle of the wingwall of New Cumberland Dam where measurements were made at the surface, at 3.0 ft and 5.0 ft, and then in 5.0-ft intervals until near the bottom of the river. The locations of the sampling sites are shown in figures 3a and 3b. An exception to this protocol

¹ The use of brand, firm, or trade names in this report is for identification purposes and does not constitute endorsement by the U. S. Geological Survey.

was used to make the May and June measurements. May measurements were made at three depths (about 3.3 ft below the surface, middle of the water column, and near the bottom of the river). June measurements were made at four depths (at the surface, about 3.3 ft below the surface, middle of the water column, and near the bottom of the river). Each location corresponds to the position of a U.S. Coast Guard navigation light or daymark. Sampling methods and instruments were the same as for the cross-sectional transects.

Collection and Analysis of Phytoplankton-Pigment Samples and Light-Penetration Measurements

During most sampling periods, concentrations of photosynthetic-pigment phytoplankton concentrations were measured at the mid-channel vertical profiles in each of the five cross-sectional transects. At each sampling site, water was collected from four depths (at the surface, about 3.0 ft below the surface, middle of the water column, and near the bottom of the river) in a 3.2-liter acrylic Kemmerer water sampler and transferred to 1-liter brown plastic bottles. Samples were stored in the dark at 4°C until they were transported to the laboratory for processing.

Continuous-Recorded Water-Quality Monitoring

The portable water-quality monitoring system was calibrated at the beginning of each sampling period in accordance with the recommendations of the manufacturer (Hydrolab Corporation, 1991) and was checked periodically during the day for meter drift. Barometric pressure was recorded before each set of field measurement by use of an analog barometer that was calibrated against a mercury barometer maintained by the National Weather Service Forecast Office in Charleston, W. Va.

Quality Assurance

The portable monitoring system measures DO concentration electrometrically with a standard membrane electrode. The electrode was calibrated by reading the meter against water-saturated air at known temperature and barometric pressure. As a

further check of the accuracy of the DO concentration measurements, the electrode response was tested with a solution of sodium sulfite of sufficient concentration (about 1 g/L) to reduce DO concentration to below the detection limit (0.2 mg/L) of the meter (Skougstad and others, 1979).

At least once during each set of cross-sectional transect measurements, a water sample was collected from a point in the cross section at the same time that electrode measurements were recorded, and the DO concentration of the water sample was determined immediately by the Winkler method with azide modification (American Public Health Association and others, 1992, p. 4-100). The meter response was considered accurate if it differed from the results of the Winkler test by no more than 0.2 mg/L. Differences of less than 0.2 mg/L in reported DO concentrations probably are not significant. DO concentration, as a percentage of the saturation concentration, was calculated using the equations and tables of Weiss (1970).

Secchi disk measurements were always made by the same individual between the hours of 1000 and 1600 EDT. Secchi disk depths were not recorded if the sampling time was outside this time frame or if high flows or surface waves made measuring impossible.

The continuous-recording water-quality monitors were serviced and recalibrated according to the manufacturer's instructions at least once every 2 weeks, and more frequently during periods of high water temperatures and low riverflows. Two sensor packages were available for each monitoring location so that a precalibrated unit could be installed at a site and the existing unit removed and returned to the laboratory for servicing. Data from the downstream monitor were transmitted from the Data Collection Platform (DCP) by way of the GOES satellite to a local read-out ground station and from there by way of Internet to the Prime. After being transmitted to the Prime, it was processed through Device Conversion & Delivery System (DECODES) and loaded into standard data format into the Automated Data Processing System (ADAPS). Occasionally, there were interruptions to the

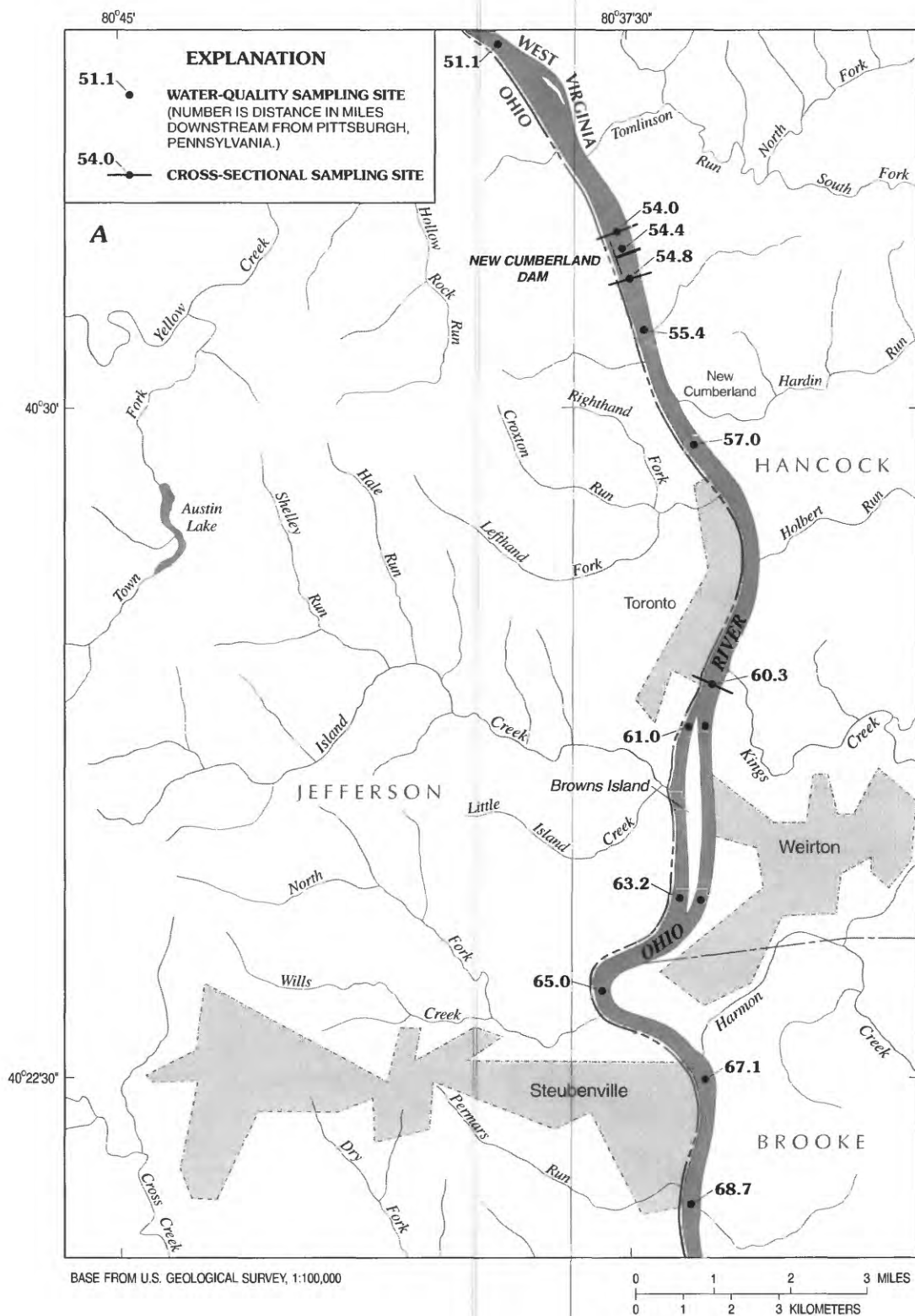


Figure 3a. Water-quality and cross-sectional sampling sites in the upstream section of the study reach.

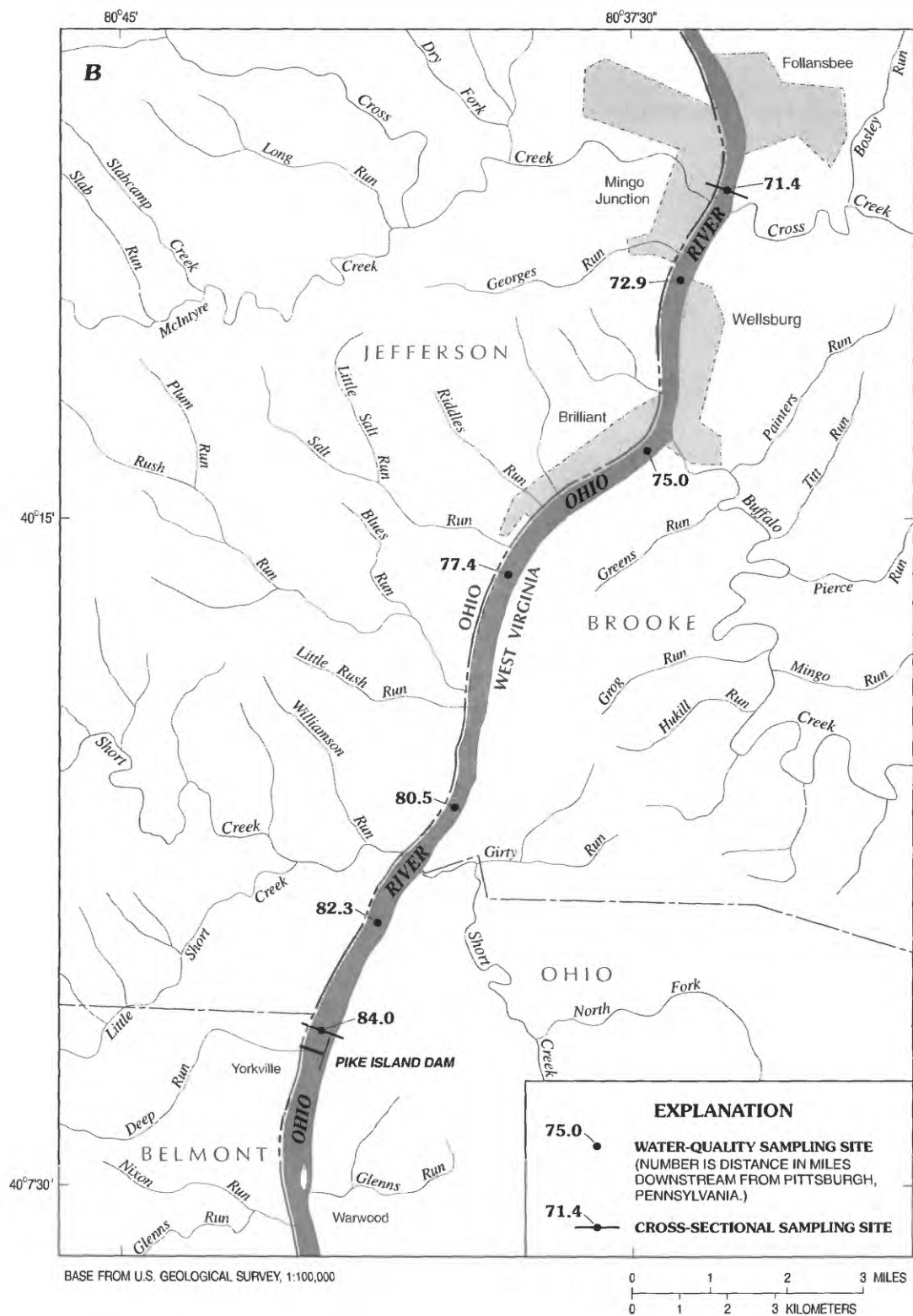


Figure 3b. Water-quality and cross-sectional sampling sites in the downstream section of the study reach.

satellite transmissions and the process was altered. Amendments to the process included downloading the data to a disk and manually processing it through DECODES. Data from the upstream monitor were downloaded to a disk and manually processed through DECODES. Personnel from the USGS West Virginia District performed daily quality control by scanning the unedited data, and checking for data interruptions and erroneous values. Raw data were checked for meter drift and corrected, when necessary, by assuming a linear rate of change between successive recalibrations.

WATER-QUALITY DATA

Water-quality data collected in the Ohio River from New Cumberland Dam to Pike Island Dam during May through October 1993 are presented in tables 1-29. Data for the cross-sectional and longitudinal transects are presented in tables 1-21. The data are arranged according to location of sampling, date, and depth of sampling. Summaries of continuously recorded water-quality data are presented in tables 22 through 29 and are arranged according to date, parameter sampled, and location of sample.

Cross-Sectional and Longitudinal-Transect Data

Tables 1 through 21 present water-quality data for cross-sectional and longitudinal transects. Each table contains all water-quality data collected during 1993 at the sampling point indicated. Sampling points are identified by station number and by river mile. The main shipping channel in the Pike Island pool is to the left (the West Virginia side) of Browns Island, the largest island in the pool; the back channel is to the right (the Ohio side) of the island. In this report, locations for both main-channel and back-channel sampling sites are always given as the total distance from the left bank to the middle of the channel and are stored electronically in the U.S. Geological Survey Water Data Storage and Retrieval System (WATSTORE). At locations where cross-sectional-transect data were collected, the location of each depth profile is given as the estimated

distance in feet from the left bank of the river and the sampling depth is given in feet below the surface of the water.

Field-data measurements for the May 26 sampling period do not include surface measurements but include depth profiles of approximately 3.3 ft, 6.6 ft, and, 9.9 ft, followed by intervals of 6.6 ft because other protocol had not yet been developed. The June sampling period consisted of surface measurements but did not follow the normal protocol (sampling depths of 3.0 ft, 5.0 ft, then intervals of 5.0 ft until just off of the bottom of the river) because it had not yet been implemented. Complete sets of data were collected for the remaining sampling periods (July 14 and 27, August 10 and 24, September 21, and October 5, 28, and 29). The final sampling period stretched over 2 days because the upstream continuous-recording monitor was removed for the season during this sampling period.

Chlorophyll concentration is used extensively to estimate phytoplankton biomass. Chlorophyll *a* is abundant in all green plants and constitutes about 1 to 2 percent of phytoplankton dry weight (American Public Health Association and others, 1992, p. 10-17). Chlorophyll *b* is an accessory pigment found in green algae and other phytoplankton taxa. A random selection of the collected samples were filtered through glass-fiber filters (GF/C, 1.9 in. diameter) and the filters were shipped on dry ice to the USGS National Water Quality Laboratory in Arvada, Colo., for analysis. Water samples with large amounts of suspended sediment were not analyzed for chlorophyll concentration.

Secchi disk transparency is a measure of the relative amount of light available for photosynthesis (Wetzel and Likens, 1979). The depth at which the Secchi disk disappears from view is affected by the concentration of suspended particles and by light-absorbing characteristics of the water. No Secchi disk data were reported before the hour of 1000 nor after the hour of 1600 EDT. Weather conditions and high flows on the river occasionally precluded the collection of Secchi disk data.

Continuous-Recording Monitor Data

Continuously recorded monitored water-quality data for the Ohio River at the New Cumberland Dam from May through October 1993 are summarized in tables 22 through 29. These tables contain daily maximum, minimum, and mean values for specific conductance, water temperature, and DO concentration and daily maximum, minimum, and median values for pH

for both upstream and downstream continuous-recording monitors. The locations of the monitors are identified by station number and as either the upstream or the downstream location; monitor locations are shown in figure 4. If less than 80 percent of hourly values were recorded for a day, a mean value was not reported for that day. Hourly records are stored permanently in the USGS National Water Information System (NWIS) data base.

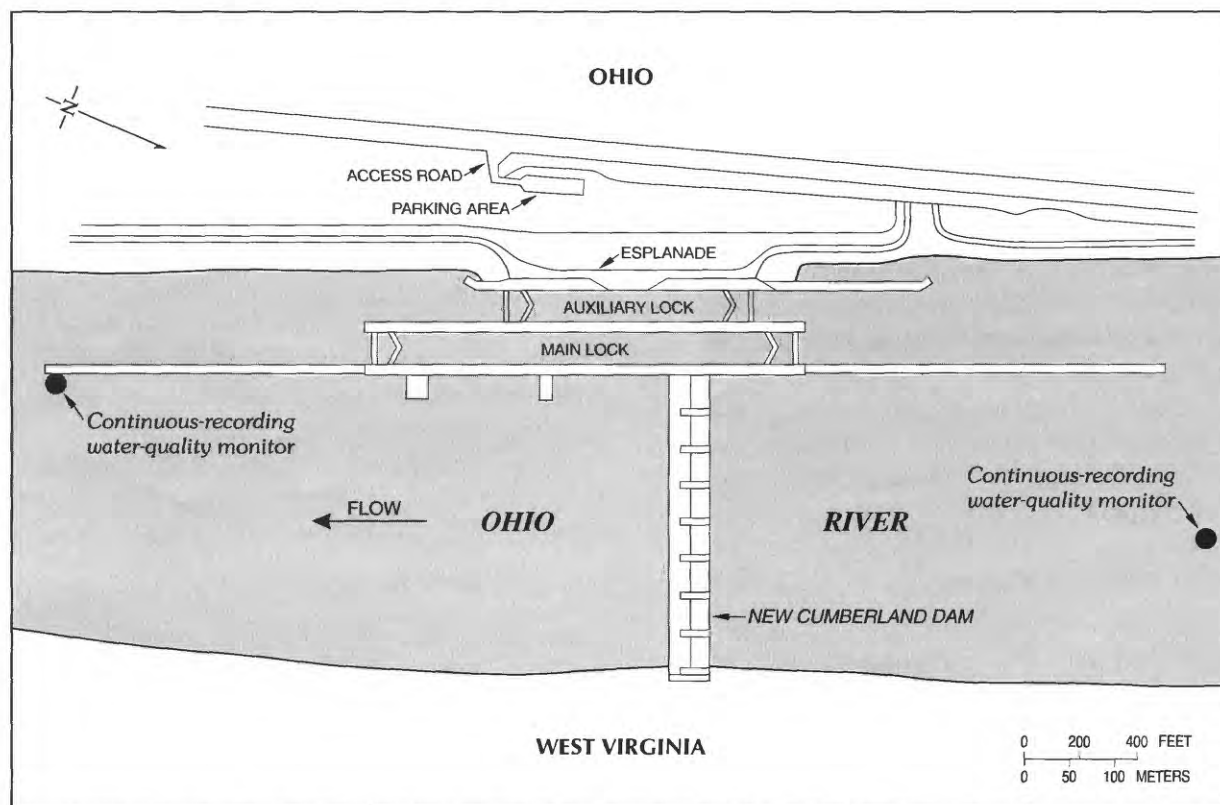


Figure 4. Schematic diagram of New Cumberland Dam showing location of continuous-recording water-quality monitors.

SUMMARY

The water-quality data presented in this report were collected during the summer and fall of 1993 as part of a monitoring program designed to assess the effects of hydropower development on water quality in the Pike Island navigation pool of the Ohio River (Ohio River miles 51.1 to 84.0). The data were collected, in part, to satisfy license requirements for development of hydropower at New Cumberland Dam (FERC Hydroelectric Project No. 6901).

Data-collection methods consisted of repeated synoptic sampling of selected water-quality characteristics throughout the pool and continuous-record monitoring.

During synoptic sampling, specific conductance, pH, water temperature, and dissolved oxygen concentration were measured along a longitudinal transect of 18 mid-channel sampling sites. Water-quality measurements also were made at two sites located on the back-channel (Ohio) side of Browns Island and at one site near the middle of the wingwall of New Cumberland Dam. Longitudinal-transect and back-channel sites were sampled in the middle of the channel at the surface, about 3.3 ft below the surface, at the middle of the water column, and near the bottom. Cross-sectional transects of the same water-quality measurements were made at 5 of the 18 main-

channel sites. Cross-sectional transects consisted of three to four vertical profiles with measurements at the surface, 3.0 ft, 5.0 ft, and then at intervals of 5.0 ft. In addition to these measurements, water samples were collected from four depths at the midpoints of the five cross-sectional transects and randomly analyzed for concentrations of phytoplankton chlorophylls *a* and *b*. An estimate of the depth of light penetration (Secchi disk depth) was made at each phytoplankton-pigment sampling site whenever light and river-surface conditions were appropriate. Synoptic water-quality measurements were made once in May and June, twice in July and August, once in September, and twice in October 1993.

Continuous-recording water-quality monitors were installed immediately upstream and downstream from the New Cumberland Dam. Hourly measurements of specific conductance, pH, water temperature, and dissolved oxygen concentration were recorded beginning in May and continued through October 1993. Maximum, minimum, and mean daily values of specific conductance, water temperature and dissolved oxygen concentration are reported. Maximum, minimum, and median daily values of pH are reported.

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Table 1. Water-quality data for station 403400080392201, Ohio River at river mile 51.1, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|-----------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1825 | 3.3 | 600 | 443 | 7.8 | 19.1 | -- | 10.2 | 111 | 5.1 | 0.5 |
| 26 | 1827 | 25 | 600 | 436 | 7.5 | 18.4 | -- | 9.6 | 104 | -- | -- |
| 26 | 1826 | 49 | 600 | 437 | 7.5 | 18.3 | -- | 9.4 | 102 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1310 | 1.0 | 600 | 477 | 7.7 | 20.7 | -- | 9.3 | 106 | -- | -- |
| 08 | 1311 | 4.3 | 600 | 458 | 7.7 | 19.7 | -- | 9.3 | 104 | -- | -- |
| 08 | 1312 | 21 | 600 | 456 | 7.6 | 19.6 | -- | 9.2 | 102 | -- | -- |
| 08 | 1312 | 42 | 600 | 453 | 7.6 | 19.6 | -- | 9.2 | 102 | -- | -- |
| 14 | 1756 | .1 | 600 | 493 | 8.8 | 29.3 | -- | 9.8 | 131 | -- | -- |
| 14 | 1756 | 3.0 | 600 | 495 | 8.4 | 28.8 | -- | 8.7 | 115 | -- | -- |
| 14 | 1755 | 23 | 600 | 494 | 8.1 | 28.5 | -- | 7.7 | 101 | -- | -- |
| 14 | 1754 | 45 | 600 | 493 | 8.0 | 28.3 | -- | 7.3 | 96 | -- | -- |
| 27 | 1205 | .2 | 600 | 528 | 8.6 | 31.4 | -- | 9.3 | 129 | -- | -- |
| 27 | 1205 | 3.2 | 600 | 528 | 8.6 | 31.4 | -- | 9.3 | 129 | -- | -- |
| 27 | 1209 | 13 | 600 | 533 | 8.1 | 28.2 | -- | 8.1 | 106 | -- | -- |
| 27 | 1207 | 33 | 600 | 535 | 8.0 | 27.6 | -- | 7.9 | 103 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1628 | .2 | 600 | 516 | 7.7 | 28.8 | -- | 7.7 | 98 | -- | -- |
| 10 | 1629 | 15 | 600 | 516 | 7.7 | 27.0 | -- | 7.6 | 98 | -- | -- |
| 10 | 1629 | 20 | 600 | 516 | 7.6 | 26.6 | -- | 7.4 | 96 | -- | -- |
| 10 | 1638 | 25 | 600 | 511 | 7.7 | 26.0 | -- | 7.4 | 92 | -- | -- |
| August | | | | | | | | | | | |
| 24 | 1745 | .3 | 600 | 517 | 8.8 | 27.9 | -- | 10.5 | 137 | 26.0 | 4.9 |
| 24 | 1744 | 3.2 | 600 | 516 | 8.7 | 27.6 | -- | 9.9 | 128 | -- | -- |
| 24 | 1744 | 16 | 600 | 527 | 7.9 | 26.8 | -- | 7.9 | 101 | -- | -- |
| 24 | 1742 | 32 | 600 | 527 | 7.8 | 26.7 | -- | 7.5 | 95 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1915 | .2 | 600 | 461 | 7.4 | 21.7 | -- | 7.8 | 85 | -- | -- |
| 21 | 1916 | 3.2 | 600 | 461 | 7.4 | 21.7 | -- | 7.8 | 85 | -- | -- |
| 21 | 1918 | 25.3 | 600 | 461 | 7.4 | 21.7 | -- | 7.8 | 85 | -- | -- |
| 21 | 1917 | 49.4 | 600 | 462 | 7.4 | 21.7 | -- | 7.7 | 80 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1801 | .2 | 600 | 414 | 7.6 | 17.0 | -- | 10.4 | 108 | -- | -- |
| 05 | 1801 | 3.0 | 600 | 414 | 7.6 | 16.9 | -- | 10.3 | 107 | -- | -- |
| 05 | 1800 | 9.9 | 600 | 413 | 7.5 | 16.5 | -- | 10.2 | 105 | -- | -- |
| 05 | 1759 | 20 | 600 | 413 | 7.5 | 16.5 | -- | 10.2 | 105 | -- | -- |
| 28 | 1528 | 0.0 | 600 | 387 | 7.5 | 13.7 | -- | 11.2 | 107 | -- | -- |
| 28 | 1529 | 2.5 | 600 | 387 | 7.5 | 13.7 | -- | 11.2 | 107 | -- | -- |
| 28 | 1530 | 22 | 600 | 384 | 7.5 | 13.7 | -- | 11.2 | 107 | -- | -- |
| 28 | 1531 | 44 | 600 | 387 | 7.5 | 13.7 | -- | 11.2 | 107 | -- | -- |

Table 2. Water-quality data for station 403156080373201, Ohio River at river mile 54.0, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|-------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1746 | 3.3 | 500 | 421 | 7.8 | 22.2 | -- | 10.3 | 120 | -- | -- |
| 26 | 1750 | 6.6 | 500 | 421 | 7.8 | 21.4 | -- | 10.1 | 116 | -- | -- |
| 26 | 1747 | 9.9 | 500 | 426 | 7.8 | 19.7 | -- | 10.3 | 114 | -- | -- |
| 26 | 1748 | 16 | 500 | 425 | 7.7 | 18.7 | -- | 10.0 | 109 | -- | -- |
| 26 | 1748 | 23 | 500 | 422 | 7.6 | 18.6 | -- | 9.9 | 107 | -- | -- |
| 26 | 1748 | 30 | 500 | 427 | 7.6 | 18.4 | -- | 9.8 | 106 | -- | -- |
| 26 | 1749 | 32 | 500 | 417 | 7.5 | 18.4 | -- | 9.7 | 105 | -- | -- |
| 26 | 1754 | 3.3 | 900 | 416 | 8.0 | 22.3 | -- | 10.5 | 123 | 5.1 | 0.5 |
| 26 | 1754 | 6.6 | 900 | 425 | 7.8 | 21.9 | -- | 10.3 | 120 | -- | -- |
| 26 | 1755 | 9.9 | 900 | 421 | 7.7 | 20.3 | -- | 10.4 | 117 | -- | -- |
| 26 | 1756 | 16 | 900 | 422 | 7.7 | 19.8 | -- | 10.3 | 115 | -- | -- |
| 26 | 1757 | 23 | 900 | 420 | 7.6 | 18.6 | -- | 9.9 | 108 | -- | -- |
| 26 | 1759 | 28 | 900 | 417 | 7.6 | 18.6 | -- | 9.9 | 107 | -- | -- |
| 26 | 1741 | 3.3 | 1,400 | 420 | 7.8 | 21.6 | -- | 10.3 | 118 | -- | -- |
| 26 | 1741 | 6.6 | 1,400 | 423 | 7.8 | 20.2 | -- | 10.5 | 117 | -- | -- |
| 26 | 1741 | 9.9 | 1,400 | 424 | 7.8 | 19.8 | -- | 10.4 | 116 | -- | -- |
| 26 | 1742 | 16 | 1,400 | 422 | 7.7 | 18.9 | -- | 10.2 | 112 | -- | -- |
| 26 | 1742 | 23 | 1,400 | 422 | 7.7 | 18.7 | -- | 10.1 | 110 | -- | -- |
| 26 | 1743 | 30 | 1,400 | 427 | 7.6 | 18.7 | -- | 10.0 | 109 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1235 | 1.0 | 500 | 474 | 7.7 | 20.5 | -- | 9.3 | 105 | -- | -- |
| 08 | 1235 | 4.3 | 500 | 475 | 7.7 | 20.0 | -- | 9.3 | 105 | -- | -- |
| 08 | 1235 | 7.2 | 500 | 472 | 7.7 | 19.8 | -- | 9.2 | 104 | -- | -- |
| 08 | 1236 | 11 | 500 | 472 | 7.7 | 19.7 | -- | 9.1 | 102 | -- | -- |
| 08 | 1236 | 17 | 500 | 474 | 7.6 | 19.6 | -- | 9.0 | 101 | -- | -- |
| 08 | 1237 | 23 | 500 | 469 | 7.6 | 19.6 | -- | 9.0 | 101 | -- | -- |
| 08 | 1237 | 29 | 500 | 471 | 7.6 | 19.6 | -- | 8.9 | 100 | -- | -- |
| 08 | 1237 | 32 | 500 | 473 | 7.6 | 19.6 | -- | 8.9 | 99 | -- | -- |
| 08 | 1253 | 1.0 | 900 | 475 | 7.7 | 20.6 | 1.0 | 9.5 | 108 | -- | -- |
| 08 | 1254 | 3.6 | 900 | 476 | 7.7 | 20.2 | -- | 9.2 | 105 | -- | -- |
| 08 | 1255 | 6.9 | 900 | 474 | 7.7 | 19.8 | -- | 9.5 | 106 | -- | -- |
| 08 | 1255 | 9.9 | 900 | 474 | 7.7 | 19.7 | -- | 9.2 | 104 | -- | -- |
| 08 | 1256 | 16 | 900 | 475 | 7.7 | 19.7 | -- | 9.5 | 108 | -- | -- |
| 08 | 1256 | 23 | 900 | 475 | 7.7 | 19.7 | -- | 9.2 | 103 | -- | -- |
| 08 | 1256 | 29 | 900 | 475 | 7.7 | 19.7 | -- | 9.5 | 108 | -- | -- |
| 08 | 1227 | .7 | 1,400 | 471 | 7.7 | 20.4 | -- | 9.2 | 103 | -- | -- |
| 08 | 1227 | 4.0 | 1,400 | 475 | 7.7 | 20.0 | -- | 9.4 | 107 | -- | -- |
| 08 | 1228 | 7.6 | 1,400 | 471 | 7.7 | 19.8 | -- | 9.1 | 102 | -- | -- |
| 08 | 1229 | 11 | 1,400 | 471 | 7.7 | 19.7 | -- | 9.4 | 106 | -- | -- |
| 08 | 1229 | 17 | 1,400 | 474 | 7.7 | 19.7 | -- | 9.1 | 102 | -- | -- |
| 08 | 1230 | 23 | 1,400 | 474 | 7.7 | 19.7 | -- | 9.1 | 102 | -- | -- |
| 08 | 1230 | 29 | 1,400 | 474 | 7.7 | 19.7 | -- | 9.4 | 106 | -- | -- |

Table 2. Water-quality data for station 403156080373201, Ohio River at river mile 54.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| July | | | | | | | | | | | |
| 14 | 1720 | 0.1 | 500 | 499 | 8.1 | 33.5 | -- | 8.0 | 114 | -- | -- |
| 14 | 1721 | 2.9 | 500 | 499 | 8.1 | 33.5 | -- | 7.9 | 113 | -- | -- |
| 14 | 1722 | 5.4 | 500 | 500 | 8.1 | 33.4 | -- | 7.8 | 112 | -- | -- |
| 14 | 1722 | 9.9 | 500 | 499 | 8.0 | 33.3 | -- | 7.7 | 109 | -- | -- |
| 14 | 1722 | 15 | 500 | 496 | 8.0 | 30.3 | -- | 7.8 | 106 | -- | -- |
| 14 | 1723 | 20 | 500 | 499 | 8.1 | 29.1 | -- | 7.8 | 104 | -- | -- |
| 14 | 1723 | 25 | 500 | 497 | 7.9 | 28.5 | -- | 7.5 | 98 | -- | -- |
| 14 | 1723 | 28 | 500 | 499 | 7.9 | 28.5 | -- | 7.1 | 94 | -- | -- |
| 14 | 1731 | .1 | 900 | 499 | 8.1 | 33.5 | -- | 7.8 | 112 | -- | -- |
| 14 | 1731 | 3.3 | 900 | 499 | 8.1 | 33.4 | -- | 7.8 | 112 | -- | -- |
| 14 | 1730 | 5.1 | 900 | 498 | 8.1 | 33.4 | -- | 7.8 | 112 | -- | -- |
| 14 | 1730 | 10 | 900 | 496 | 8.0 | 33.2 | -- | 7.7 | 110 | 8.2 | 0.6 |
| 14 | 1729 | 15 | 900 | 497 | 8.0 | 30.7 | -- | 7.8 | 106 | -- | -- |
| 14 | 1728 | 20 | 900 | 499 | 8.0 | 29.1 | -- | 7.7 | 103 | -- | -- |
| 14 | 1727 | 24 | 900 | 498 | 7.9 | 28.6 | -- | 7.4 | 98 | -- | -- |
| 14 | 1712 | .1 | 1,400 | 498 | 8.0 | 33.7 | -- | 7.9 | 113 | -- | -- |
| 14 | 1713 | 3.2 | 1,400 | 499 | 8.0 | 33.5 | -- | 7.8 | 112 | -- | -- |
| 14 | 1713 | 5.4 | 1,400 | 499 | 8.0 | 33.0 | -- | 7.9 | 112 | -- | -- |
| 14 | 1714 | 9.9 | 1,400 | 497 | 8.0 | 31.2 | -- | 7.7 | 107 | -- | -- |
| 14 | 1714 | 15 | 1,400 | 497 | 8.0 | 29.9 | -- | 7.8 | 105 | -- | -- |
| 14 | 1715 | 20 | 1,400 | 498 | 8.0 | 28.8 | -- | 7.5 | 100 | -- | -- |
| 14 | 1715 | 25 | 1,400 | 499 | 7.9 | 28.7 | -- | 7.4 | 98 | -- | -- |
| 14 | 1716 | 28 | 1,400 | 499 | 7.9 | 28.6 | -- | 7.3 | 97 | -- | -- |
| 27 | 1353 | .3 | 500 | 537 | 7.9 | 33.5 | -- | 6.9 | 99 | -- | -- |
| 27 | 1353 | 3.4 | 500 | 539 | 7.9 | 33.5 | -- | 7.1 | 102 | -- | -- |
| 27 | 1354 | 5.2 | 500 | 537 | 7.9 | 33.2 | -- | 7.0 | 101 | -- | -- |
| 27 | 1354 | 9.9 | 500 | 540 | 7.8 | 33.0 | -- | 6.9 | 98 | -- | -- |
| 27 | 1355 | 15 | 500 | 533 | 7.9 | 31.2 | -- | 7.1 | 98 | -- | -- |
| 27 | 1355 | 20 | 500 | 537 | 7.8 | 28.4 | -- | 6.9 | 90 | -- | -- |
| 27 | 1355 | 25 | 500 | 539 | 7.7 | 28.0 | -- | 6.8 | 89 | -- | -- |
| 27 | 1356 | 29 | 500 | 542 | 7.7 | 27.9 | -- | 6.8 | 89 | -- | -- |
| 27 | 1338 | .1 | 900 | 537 | 7.9 | 33.6 | 4.0 | 6.9 | 99 | -- | -- |
| 27 | 1339 | 2.8 | 900 | 537 | 7.9 | 33.5 | -- | 7.1 | 102 | -- | -- |
| 27 | 1340 | 5.0 | 900 | 536 | 7.9 | 33.2 | -- | 7.2 | 102 | -- | -- |
| 27 | 1340 | 10 | 900 | 537 | 7.8 | 32.9 | -- | 7.1 | 101 | -- | -- |
| 27 | 1341 | 15 | 900 | 538 | 7.9 | 30.8 | -- | 7.2 | 99 | -- | -- |
| 27 | 1342 | 20 | 900 | 538 | 7.8 | 28.4 | -- | 7.1 | 93 | -- | -- |
| 27 | 1342 | 25 | 900 | 539 | 7.7 | 28.0 | -- | 6.9 | 90 | -- | -- |
| 27 | 1343 | 30 | 900 | 538 | 7.7 | 27.9 | -- | 6.8 | 89 | -- | -- |
| 27 | 1344 | 33 | 900 | 538 | 7.7 | 27.9 | -- | 5.9 | 77 | -- | -- |
| 27 | 1346 | .2 | 1,400 | 537 | 7.9 | 35.1 | -- | 7.0 | 103 | -- | -- |
| 27 | 1347 | 3.0 | 1,400 | 539 | 7.9 | 34.6 | -- | 6.9 | 102 | -- | -- |
| 27 | 1347 | 4.9 | 1,400 | 535 | 7.9 | 33.5 | -- | 7.0 | 101 | -- | -- |
| 27 | 1348 | 10 | 1,400 | 536 | 7.9 | 32.7 | -- | 7.0 | 100 | -- | -- |
| 27 | 1348 | 15 | 1,400 | 539 | 7.9 | 30.7 | -- | 7.1 | 97 | -- | -- |
| 27 | 1349 | 20 | 1,400 | 539 | 7.8 | 28.9 | -- | 7.1 | 94 | -- | -- |
| 27 | 1349 | 25 | 1,400 | 537 | 7.7 | 28.2 | -- | 6.9 | 90 | -- | -- |
| 27 | 1350 | 28 | 1,400 | 537 | 7.7 | 28.1 | -- | 6.6 | 87 | -- | -- |

Table 2. Water-quality data for station 403156080373201, Ohio River at river mile 54.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|---------------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| August | | | | | | | | | | | |
| 10 | 1610 | 0.1 | 500 | 517 | 7.6 | 31.1 | -- | 7.6 | 104 | -- | -- |
| 10 | 1610 | 3.0 | 500 | 517 | 7.6 | 31.0 | -- | 7.5 | 104 | -- | -- |
| 10 | 1609 | 5.0 | 500 | 518 | 7.6 | 31.1 | -- | 7.6 | 104 | -- | -- |
| 10 | 1608 | 10 | 500 | 518 | 7.6 | 31.2 | -- | 7.5 | 103 | -- | -- |
| 10 | 1608 | 15 | 500 | 516 | 7.6 | 30.7 | -- | 7.6 | 104 | -- | -- |
| 10 | 1607 | 20 | 500 | 513 | 7.5 | 26.6 | -- | 7.2 | 92 | -- | -- |
| 10 | 1607 | 25 | 500 | 515 | 7.5 | 26.3 | -- | 7.1 | 90 | -- | -- |
| 10 | 1606 | 31 | 500 | 513 | 7.5 | 26.2 | -- | 7.1 | 89 | -- | -- |
| | | | | | | | | | | | |
| 10 | 1638 | 3.0 | 900 | 516 | 7.6 | 28.8 | -- | 7.4 | 98 | -- | -- |
| 10 | 1637 | 5.0 | 900 | 515 | 7.7 | 28.8 | -- | 7.4 | 98 | -- | -- |
| 10 | 1637 | 10 | 900 | 516 | 7.7 | 28.5 | -- | 7.4 | 97 | -- | -- |
| 10 | 1636 | 15 | 900 | 516 | 7.7 | 27.4 | -- | 7.4 | 96 | -- | -- |
| 10 | 1636 | 20 | 900 | 511 | 7.6 | 26.0 | -- | 7.3 | 91 | -- | -- |
| 10 | 1635 | 25 | 900 | 511 | 7.6 | 25.9 | -- | 7.2 | 90 | -- | -- |
| 10 | 1634 | 30 | 900 | 511 | 7.6 | 25.9 | -- | 7.1 | 89 | -- | -- |
| 10 | 1633 | 31 | 900 | 511 | 7.6 | 25.8 | -- | 7.0 | 87 | -- | -- |
| | | | | | | | | | | | |
| 10 | 1620 | .1 | 1,400 | 516 | 7.6 | 29.2 | -- | 7.4 | 98 | -- | -- |
| 10 | 1620 | 3.0 | 1,400 | 517 | 7.6 | 29.0 | -- | 7.4 | 98 | -- | -- |
| 10 | 1621 | 5.0 | 1,400 | 517 | 7.6 | 28.6 | -- | 7.4 | 97 | -- | -- |
| 10 | 1621 | 10 | 1,400 | 518 | 7.6 | 27.9 | -- | 7.5 | 97 | -- | -- |
| 10 | 1622 | 15 | 1,400 | 516 | 7.7 | 27.3 | -- | 7.5 | 96 | -- | -- |
| 10 | 1622 | 20 | 1,400 | 514 | 7.6 | 26.3 | -- | 7.3 | 92 | -- | -- |
| 10 | 1623 | 25 | 1,400 | 512 | 7.6 | 25.9 | -- | 7.1 | 89 | -- | -- |
| 10 | 1623 | 29 | 1,400 | 513 | 7.5 | 25.8 | -- | 7.0 | 88 | -- | -- |
| | | | | | | | | | | | |
| 24 | 1713 | .1 | 500 | 518 | 7.7 | 31.8 | -- | 7.7 | 107 | -- | -- |
| 24 | 1712 | 2.8 | 500 | 518 | 7.7 | 31.9 | -- | 7.7 | 107 | -- | -- |
| 24 | 1712 | 5.1 | 500 | 518 | 7.7 | 31.8 | -- | 7.7 | 108 | -- | -- |
| 24 | 1711 | 9.7 | 500 | 521 | 7.6 | 29.4 | -- | 7.5 | 100 | -- | -- |
| 24 | 1710 | 15 | 500 | 517 | 7.6 | 28.2 | -- | 7.6 | 99 | -- | -- |
| 24 | 1709 | 20 | 500 | 517 | 7.5 | 27.2 | -- | 7.2 | 92 | -- | -- |
| 24 | 1708 | 25 | 500 | 518 | 7.5 | 27.0 | -- | 7.1 | 91 | -- | -- |
| 24 | 1707 | 30 | 500 | 519 | 7.5 | 27.0 | -- | 7.1 | 91 | -- | -- |
| | | | | | | | | | | | |
| 24 | 1652 | .2 | 900 | 517 | 7.7 | 31.3 | -- | 7.5 | 104 | 10.0 | 1.2 |
| 24 | 1651 | 3.2 | 900 | 518 | 7.7 | 31.3 | -- | 7.7 | 106 | -- | -- |
| 24 | 1651 | 4.9 | 900 | 516 | 7.6 | 31.2 | -- | 7.6 | 105 | -- | -- |
| 24 | 1650 | 10 | 900 | 517 | 7.6 | 29.4 | -- | 7.5 | 100 | -- | -- |
| 24 | 1649 | 15 | 900 | 518 | 7.6 | 28.1 | -- | 7.5 | 98 | -- | -- |
| 24 | 1648 | 20 | 900 | 518 | 7.5 | 27.2 | -- | 7.3 | 94 | -- | -- |
| 24 | 1647 | 25 | 900 | 517 | 7.5 | 27.1 | -- | 7.3 | 93 | -- | -- |
| 24 | 1647 | 27 | 900 | 521 | 7.5 | 27.1 | -- | 7.3 | 93 | -- | -- |
| | | | | | | | | | | | |
| 24 | 1702 | .1 | 1,400 | 518 | 7.6 | 32.2 | -- | 7.6 | 106 | -- | -- |
| 24 | 1702 | 2.8 | 1,400 | 517 | 7.6 | 31.6 | -- | 7.5 | 104 | -- | -- |
| 24 | 1701 | 4.8 | 1,400 | 516 | 7.6 | 30.0 | -- | 6.8 | 92 | -- | -- |
| 24 | 1700 | 10 | 1,400 | 516 | 7.6 | 29.0 | -- | 6.9 | 92 | -- | -- |
| 24 | 1700 | 15 | 1,400 | 517 | 7.6 | 28.0 | -- | 7.4 | 97 | -- | -- |
| 24 | 1700 | 20 | 1,400 | 517 | 7.5 | 27.4 | -- | 7.3 | 94 | -- | -- |
| 24 | 1659 | 25 | 1,400 | 517 | 7.5 | 27.2 | -- | 7.2 | 93 | -- | -- |
| 24 | 1658 | 28 | 1,400 | 519 | 7.5 | 27.1 | -- | 7.1 | 91 | -- | -- |

Table 2. Water-quality data for station 403156080373201, Ohio River at river mile 54.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| September | | | | | | | | | | | |
| 21 | 1307 | 0.3 | 500 | 459 | 7.3 | 26.7 | -- | 7.5 | 96 | -- | -- |
| 21 | 1308 | 2.8 | 500 | 458 | 7.3 | 26.6 | -- | 7.5 | 95 | -- | -- |
| 21 | 1309 | 4.8 | 500 | 458 | 7.4 | 26.5 | -- | 7.6 | 96 | -- | -- |
| 21 | 1309 | 9.8 | 500 | 457 | 7.4 | 24.6 | -- | 7.6 | 93 | -- | -- |
| 21 | 1310 | 15 | 500 | 457 | 7.4 | 23.4 | -- | 7.6 | 91 | -- | -- |
| 21 | 1310 | 20 | 500 | 458 | 7.4 | 23.0 | -- | 7.6 | 90 | -- | -- |
| 21 | 1311 | 25 | 500 | 459 | 7.4 | 22.3 | -- | 7.4 | 87 | -- | -- |
| 21 | 1311 | 30 | 500 | 460 | 7.4 | 22.3 | -- | 7.5 | 88 | -- | -- |
| 21 | 1312 | 32 | 500 | 454 | 7.4 | 22.3 | -- | 7.5 | 88 | -- | -- |
| 21 | 1848 | .3 | 900 | 435 | 7.4 | 25.7 | -- | 7.5 | 94 | -- | -- |
| 21 | 1850 | 3.2 | 900 | 460 | 7.4 | 25.8 | -- | 7.5 | 94 | -- | -- |
| 21 | 1851 | 4.9 | 900 | 459 | 7.4 | 25.8 | -- | 7.5 | 94 | -- | -- |
| 21 | 1851 | 10 | 900 | 460 | 7.4 | 25.7 | -- | 7.5 | 94 | 4.2 | 0.5 |
| 21 | 1852 | 15 | 900 | 457 | 7.4 | 23.3 | -- | 7.6 | 90 | -- | -- |
| 21 | 1852 | 20 | 900 | 455 | 7.4 | 23.0 | -- | 7.6 | 90 | -- | -- |
| 21 | 1853 | 25 | 900 | 457 | 7.4 | 22.5 | -- | 7.6 | 89 | -- | -- |
| 21 | 1748 | .1 | 1,400 | 451 | 7.6 | 26.4 | -- | 7.2 | 91 | -- | -- |
| 21 | 1748 | 2.9 | 1,400 | 450 | 7.6 | 26.1 | -- | 7.2 | 91 | -- | -- |
| 21 | 1749 | 4.8 | 1,400 | 449 | 7.6 | 25.7 | -- | 7.3 | 91 | -- | -- |
| 21 | 1749 | 10 | 1,400 | 451 | 7.6 | 24.0 | -- | 7.3 | 89 | -- | -- |
| 21 | 1750 | 15 | 1,400 | 449 | 7.6 | 23.6 | -- | 7.2 | 87 | -- | -- |
| 21 | 1750 | 20 | 1,400 | 449 | 7.6 | 23.1 | -- | 7.2 | 85 | -- | -- |
| 21 | 1751 | 25 | 1,400 | 449 | 7.6 | 22.7 | -- | 7.3 | 86 | -- | -- |
| 21 | 1752 | 28 | 1,400 | 448 | 7.6 | 22.7 | -- | 7.2 | 85 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1713 | .1 | 500 | 417 | 7.6 | 16.9 | -- | 10.2 | 106 | -- | -- |
| 05 | 1713 | 2.8 | 500 | 416 | 7.6 | 16.9 | -- | 10.3 | 107 | -- | -- |
| 05 | 1714 | 4.9 | 500 | 418 | 7.6 | 16.7 | -- | 10.4 | 108 | -- | -- |
| 05 | 1714 | 9.8 | 500 | 416 | 7.6 | 16.5 | -- | 10.2 | 105 | -- | -- |
| 05 | 1715 | 15 | 500 | 424 | 7.5 | 16.4 | -- | 10.0 | 103 | -- | -- |
| 05 | 1716 | 20 | 500 | 421 | 7.5 | 16.4 | -- | 10.0 | 103 | -- | -- |
| 05 | 1716 | 25 | 500 | 419 | 7.5 | 16.4 | -- | 10.0 | 103 | -- | -- |
| 05 | 1717 | 30 | 500 | 426 | 7.5 | 16.4 | -- | 9.9 | 102 | -- | -- |
| 05 | 1718 | 31 | 500 | 429 | 7.5 | 16.4 | -- | 9.9 | 101 | -- | -- |
| 05 | 1706 | .3 | 900 | 420 | 7.6 | 16.7 | -- | 10.4 | 108 | 3.3 | .3 |
| 05 | 1705 | 3.0 | 900 | 420 | 7.5 | 16.6 | -- | 10.1 | 104 | -- | -- |
| 05 | 1705 | 4.8 | 900 | 420 | 7.5 | 16.6 | -- | 10.1 | 104 | -- | -- |
| 05 | 1704 | 9.8 | 900 | 419 | 7.5 | 16.5 | -- | 10.0 | 103 | -- | -- |
| 05 | 1704 | 15 | 900 | 421 | 7.5 | 16.5 | -- | 10.0 | 103 | -- | -- |
| 05 | 1703 | 20 | 900 | 421 | 7.5 | 16.4 | -- | 9.9 | 102 | -- | -- |
| 05 | 1702 | 25 | 900 | 426 | 7.5 | 16.4 | -- | 9.9 | 102 | -- | -- |
| 05 | 1723 | .2 | 1,400 | 420 | 7.7 | 17.1 | -- | 10.4 | 108 | -- | -- |
| 05 | 1724 | 2.9 | 1,400 | 420 | 7.7 | 17.1 | -- | 10.5 | 109 | -- | -- |
| 05 | 1724 | 4.9 | 1,400 | 420 | 7.6 | 16.8 | -- | 10.4 | 108 | -- | -- |
| 05 | 1725 | 9.8 | 1,400 | 422 | 7.6 | 16.7 | -- | 10.2 | 106 | -- | -- |
| 05 | 1725 | 15 | 1,400 | 420 | 7.5 | 16.6 | -- | 10.1 | 104 | -- | -- |
| 05 | 1726 | 20 | 1,400 | 422 | 7.5 | 16.5 | -- | 10.1 | 104 | -- | -- |
| 05 | 1726 | 25 | 1,400 | 420 | 7.5 | 16.5 | -- | 10.1 | 104 | -- | -- |
| 05 | 1727 | 30 | 1,400 | 419 | 7.5 | 16.5 | -- | 10.1 | 104 | -- | -- |

Table 2. Water-quality data for station 403156080373201, Ohio River at river mile 54.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|---------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| October | | | | | | | | | | | |
| 28 | 1516 | 0.2 | 500 | 381 | 7.5 | 13.9 | -- | 11.3 | 108 | -- | -- |
| 28 | 1517 | 2.5 | 500 | 386 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1518 | 5.4 | 500 | 378 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1519 | 11 | 500 | 374 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1520 | 20 | 500 | 374 | 7.5 | 13.9 | -- | 11.3 | 108 | -- | -- |
| 28 | 1520 | 25 | 500 | 374 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1521 | 30 | 500 | 374 | 7.5 | 13.9 | -- | 11.2 | 108 | -- | -- |
| 28 | 1542 | .2 | 900 | 384 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1543 | 2.9 | 900 | 384 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1544 | 5.3 | 900 | 383 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1545 | 10 | 900 | 383 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1546 | 16 | 900 | 383 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1547 | 20 | 900 | 382 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1548 | 25 | 900 | 383 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1549 | 30 | 900 | 386 | 7.5 | 13.8 | -- | 11.2 | 108 | -- | -- |
| 28 | 1501 | .1 | 1,400 | 381 | 7.5 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1502 | 3.4 | 1,400 | 383 | 7.5 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1503 | 5.4 | 1,400 | 383 | 7.5 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1504 | 10 | 1,400 | 379 | 7.4 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1505 | 16 | 1,400 | 388 | 7.4 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1506 | 20 | 1,400 | 389 | 7.4 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1507 | 26 | 1,400 | 393 | 7.4 | 13.8 | -- | 11.2 | 107 | -- | -- |
| 28 | 1508 | 30 | 1,400 | 361 | 7.4 | 13.8 | -- | 11.2 | 107 | -- | -- |

Table 3. Water-quality data for station 403139080373801, Ohio River at river mile 54.4, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|--------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1727 | 3.3 | 1,100 | 431 | 7.6 | 22.6 | -- | 10.0 | 117 | -- | -- |
| 26 | 1728 | 6.6 | 1,100 | 429 | 7.6 | 22.2 | -- | 9.9 | 116 | -- | -- |
| 26 | 1728 | 9.9 | 1,100 | 431 | 7.6 | 22.0 | -- | 9.9 | 115 | -- | -- |
| 26 | 1729 | 16 | 1,100 | 423 | 7.6 | 19.9 | -- | 9.9 | 110 | -- | -- |
| 26 | 1729 | 23 | 1,100 | 424 | 7.6 | 19.0 | -- | 9.9 | 108 | -- | -- |
| 26 | 1730 | 30 | 1,100 | 422 | 7.6 | 18.9 | -- | 9.9 | 108 | -- | -- |
| 26 | 1730 | 31 | 1,100 | 422 | 7.6 | 18.9 | -- | 9.9 | 108 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1156 | 1.0 | 1,100 | 477 | 7.6 | 22.7 | -- | 9.3 | 105 | -- | -- |
| 08 | 1157 | 3.3 | 1,100 | 477 | 7.6 | 22.6 | -- | 9.2 | 103 | -- | -- |
| 08 | 1157 | 6.9 | 1,100 | 475 | 7.6 | 22.3 | -- | 9.1 | 102 | -- | -- |
| 08 | 1157 | 10 | 1,100 | 475 | 7.6 | 22.1 | -- | 9.1 | 101 | -- | -- |
| 08 | 1158 | 16 | 1,100 | 475 | 7.6 | 20.8 | -- | 9.0 | 101 | -- | -- |
| 08 | 1158 | 23 | 1,100 | 475 | 7.6 | 20.4 | -- | 9.0 | 101 | -- | -- |
| 08 | 1159 | 30 | 1,100 | 474 | 7.6 | 20.4 | -- | 8.9 | 106 | -- | -- |
| 08 | 1159 | 31 | 1,100 | 475 | 7.6 | 20.4 | -- | 9.0 | 106 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1704 | .1 | 1,100 | 499 | 8.0 | 35.4 | -- | 7.7 | 114 | -- | -- |
| 14 | 1703 | 3.1 | 1,100 | 500 | 8.0 | 34.4 | -- | 7.7 | 112 | -- | -- |
| 14 | 1702 | 5.1 | 1,100 | 500 | 8.0 | 34.2 | -- | 7.6 | 110 | -- | -- |
| 14 | 1702 | 10 | 1,100 | 499 | 8.0 | 33.8 | -- | 7.7 | 110 | -- | -- |
| 14 | 1701 | 15 | 1,100 | 499 | 7.9 | 33.5 | -- | 7.6 | 109 | -- | -- |
| 14 | 1700 | 20 | 1,100 | 503 | 7.8 | 28.6 | -- | 7.3 | 97 | -- | -- |
| 14 | 1659 | 25 | 1,100 | 502 | 7.8 | 28.6 | -- | 7.3 | 97 | -- | -- |
| 14 | 1658 | 30 | 1,100 | 501 | 7.9 | 28.6 | -- | 7.3 | 97 | -- | -- |
| 27 | 1407 | .2 | 1,100 | 536 | 7.9 | 35.1 | -- | 6.8 | 100 | -- | -- |
| 27 | 1408 | 3.0 | 1,100 | 537 | 7.9 | 34.9 | -- | 6.9 | 102 | -- | -- |
| 27 | 1409 | 5.0 | 1,100 | 538 | 7.8 | 34.5 | -- | 6.9 | 101 | -- | -- |
| 27 | 1409 | 10 | 1,100 | 537 | 7.8 | 34.2 | -- | 6.9 | 101 | -- | -- |
| 27 | 1410 | 15 | 1,100 | 538 | 7.8 | 34.0 | -- | 6.9 | 100 | -- | -- |
| 27 | 1411 | 20 | 1,100 | 538 | 7.7 | 29.2 | -- | 6.7 | 90 | -- | -- |
| 27 | 1413 | 25 | 1,100 | 538 | 7.7 | 28.3 | -- | 6.8 | 89 | -- | -- |
| 27 | 1413 | 30 | 1,100 | 542 | 7.7 | 28.2 | -- | 6.7 | 88 | -- | -- |
| 27 | 1414 | 31 | 1,100 | 542 | 7.7 | 28.2 | -- | 6.7 | 88 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1610 | 0.0 | 1,100 | 517 | 7.6 | 31.1 | -- | 7.6 | 104 | -- | -- |
| 10 | 1610 | 3.0 | 1,100 | 517 | 7.6 | 31.0 | -- | 7.5 | 104 | -- | -- |
| 10 | 1609 | 5.0 | 1,100 | 518 | 7.6 | 31.1 | -- | 7.6 | 104 | -- | -- |
| 10 | 1608 | 10 | 1,100 | 518 | 7.6 | 31.2 | -- | 7.5 | 103 | -- | -- |
| 10 | 1608 | 15 | 1,100 | 516 | 7.6 | 30.7 | -- | 7.6 | 104 | -- | -- |
| 10 | 1607 | 20 | 1,100 | 513 | 7.5 | 26.6 | -- | 7.2 | 92 | -- | -- |
| 10 | 1607 | 25 | 1,100 | 515 | 7.5 | 26.3 | -- | 7.1 | 90 | -- | -- |
| 10 | 1606 | 31 | 1,100 | 513 | 7.5 | 26.2 | -- | 7.1 | 89 | -- | -- |

Table 3. Water-quality data for station 403139080373801, Ohio River at river mile 54.4, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| August | | | | | | | | | | | |
| 24 | 1608 | 0.1 | 1,100 | 515 | 7.7 | 32.1 | -- | 7.7 | 108 | -- | -- |
| 24 | 1608 | 3.0 | 1,100 | 516 | 7.6 | 32.1 | -- | 7.6 | 102 | -- | -- |
| 24 | 1609 | 5.0 | 1,100 | 518 | 7.6 | 32.1 | -- | 7.6 | 102 | -- | -- |
| 24 | 1609 | 10 | 1,100 | 517 | 7.6 | 32.0 | -- | 7.5 | 98 | -- | -- |
| 24 | 1610 | 15 | 1,100 | 519 | 7.6 | 29.7 | -- | 7.4 | 98 | -- | -- |
| 24 | 1610 | 20 | 1,100 | 518 | 7.6 | 29.4 | -- | 7.3 | 96 | -- | -- |
| 24 | 1610 | 25 | 1,100 | 515 | 7.5 | 28.5 | -- | 7.3 | 95 | -- | -- |
| 24 | 1611 | 30 | 1,100 | 517 | 7.5 | 27.3 | -- | 7.0 | 92 | -- | -- |
| 24 | 1611 | 31 | 1,100 | 521 | 7.5 | 27.4 | -- | 7.0 | 92 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1733 | .4 | 1,100 | 452 | 7.6 | 27.9 | -- | 7.4 | 96 | -- | -- |
| 21 | 1733 | 3.1 | 1,100 | 452 | 7.6 | 27.8 | -- | 7.3 | 95 | -- | -- |
| 21 | 1734 | 5.0 | 1,100 | 451 | 7.6 | 27.5 | -- | 7.3 | 95 | -- | -- |
| 21 | 1734 | 10 | 1,100 | 448 | 7.6 | 27.2 | -- | 7.4 | 94 | -- | -- |
| 21 | 1735 | 15 | 1,100 | 449 | 7.6 | 25.8 | -- | 7.4 | 92 | -- | -- |
| 21 | 1735 | 20 | 1,100 | 448 | 7.5 | 24.1 | -- | 7.3 | 89 | -- | -- |
| 21 | 1736 | 25 | 1,100 | 449 | 7.5 | 23.3 | -- | 7.3 | 87 | -- | -- |
| 21 | 1737 | 31 | 1,100 | 446 | 7.5 | 23.0 | -- | 7.3 | 87 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1743 | .2 | 1,100 | 430 | 7.6 | 21.0 | -- | 10.0 | 113 | -- | -- |
| 05 | 1742 | 3.0 | 1,100 | 431 | 7.5 | 20.9 | -- | 9.9 | 112 | -- | -- |
| 05 | 1741 | 4.9 | 1,100 | 433 | 7.5 | 20.8 | -- | 9.9 | 112 | -- | -- |
| 05 | 1741 | 9.0 | 1,100 | 434 | 7.5 | 20.0 | -- | 10.0 | 110 | -- | -- |
| 05 | 1740 | 15 | 1,100 | 430 | 7.5 | 17.5 | -- | 10.0 | 105 | -- | -- |
| 05 | 1739 | 20 | 1,100 | 428 | 7.5 | 17.3 | -- | 9.9 | 104 | -- | -- |
| 05 | 1738 | 25 | 1,100 | 432 | 7.5 | 17.2 | -- | 9.9 | 104 | -- | -- |
| 05 | 1738 | 31 | 1,100 | 434 | 7.5 | 17.1 | -- | 9.8 | 102 | -- | -- |
| 28 | 1705 | .1 | 1,100 | 384 | 7.5 | 19.5 | -- | 10.9 | 117 | -- | -- |
| 28 | 1706 | 2.9 | 1,100 | 386 | 7.5 | 19.5 | -- | 10.9 | 117 | -- | -- |
| 28 | 1707 | 4.9 | 1,100 | 385 | 7.5 | 19.4 | -- | 10.8 | 117 | -- | -- |
| 28 | 1708 | 9.8 | 1,100 | 377 | 7.5 | 16.6 | -- | 11.3 | 115 | -- | -- |
| 28 | 1709 | 15 | 1,100 | 373 | 7.5 | 14.4 | -- | 11.1 | 108 | -- | -- |
| 28 | 1710 | 20 | 1,100 | 368 | 7.5 | 14.3 | -- | 11.1 | 108 | -- | -- |
| 28 | 1711 | 25 | 1,100 | 389 | 7.5 | 14.3 | -- | 11.1 | 108 | -- | -- |
| 28 | 1711 | 31 | 1,100 | 379 | 7.5 | 14.1 | -- | 11.1 | 107 | -- | -- |

Table 4. Water-quality data for station 403115080371801, Ohio River at river mile 54.8, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1631 | 3.3 | 400 | 416 | 7.7 | 20.5 | -- | 10.1 | 114 | -- | -- |
| 26 | 1632 | 6.6 | 400 | 418 | 7.7 | 20.4 | -- | 10.0 | 113 | -- | -- |
| 26 | 1632 | 9.9 | 400 | 418 | 7.6 | 20.3 | -- | 10.0 | 112 | -- | -- |
| 26 | 1633 | 16 | 400 | 413 | 7.6 | 20.3 | -- | 10.0 | 112 | -- | -- |
| 26 | 1633 | 23 | 400 | 414 | 7.6 | 20.2 | -- | 10.0 | 112 | -- | -- |
| 26 | 1634 | 30 | 400 | 412 | 7.6 | 20.2 | -- | 10.0 | 112 | -- | -- |
| 26 | 1622 | 3.3 | 700 | 416 | 7.6 | 20.4 | -- | 9.9 | 112 | -- | -- |
| 26 | 1622 | 6.6 | 700 | 417 | 7.6 | 20.4 | -- | 9.9 | 112 | 5.6 | 0.4 |
| 26 | 1623 | 9.9 | 700 | 418 | 7.6 | 20.4 | -- | 9.9 | 111 | -- | -- |
| 26 | 1624 | 17 | 700 | 419 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| 26 | 1617 | 3.3 | 1,100 | 415 | 7.6 | 20.3 | -- | 10.0 | 112 | -- | -- |
| 26 | 1618 | 6.6 | 1,100 | 415 | 7.6 | 20.3 | -- | 9.9 | 112 | -- | -- |
| 26 | 1619 | 9.9 | 1,100 | 418 | 7.6 | 20.3 | -- | 9.9 | 112 | -- | -- |
| 26 | 1620 | 12 | 1,100 | 415 | 7.6 | 20.3 | -- | 9.9 | 111 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1349 | .7 | 400 | 472 | 7.7 | 20.6 | -- | 9.0 | 106 | -- | -- |
| 08 | 1350 | 3.6 | 400 | 475 | 7.7 | 20.5 | -- | 8.9 | 105 | -- | -- |
| 08 | 1351 | 5.9 | 400 | 474 | 7.7 | 20.5 | -- | 8.9 | 102 | -- | -- |
| 08 | 1351 | 9.9 | 400 | 473 | 7.7 | 20.6 | -- | 8.9 | 101 | -- | -- |
| 08 | 1352 | 15 | 400 | 474 | 7.7 | 20.5 | -- | 8.9 | 101 | -- | -- |
| 08 | 1353 | 22 | 400 | 469 | 7.7 | 20.4 | -- | 8.9 | 100 | -- | -- |
| 08 | 1354 | 29 | 400 | 481 | 7.7 | 20.4 | -- | 9.5 | 108 | -- | -- |
| 08 | 1354 | 33 | 400 | 475 | 7.7 | 20.4 | -- | 9.5 | 108 | -- | -- |
| 08 | 1401 | .7 | 700 | 473 | 7.7 | 20.8 | 0.5 | 9.5 | 108 | -- | -- |
| 08 | 1400 | 3.6 | 700 | 476 | 7.7 | 20.6 | -- | 9.5 | 109 | 6.4 | .5 |
| 08 | 1400 | 6.6 | 700 | 473 | 7.7 | 20.6 | -- | 9.5 | 108 | -- | -- |
| 08 | 1359 | 9.9 | 700 | 477 | 7.7 | 20.6 | -- | 9.5 | 108 | -- | -- |
| 08 | 1359 | 16 | 700 | 472 | 7.7 | 20.6 | -- | 9.5 | 108 | -- | -- |
| 08 | 1357 | 21 | 700 | 479 | 7.7 | 20.4 | -- | 9.5 | 108 | -- | -- |
| 08 | 1407 | 1.0 | 1,100 | 474 | 7.7 | 20.8 | -- | 9.3 | 106 | -- | -- |
| 08 | 1407 | 4.3 | 1,100 | 474 | 7.7 | 20.8 | -- | 9.4 | 107 | -- | -- |
| 08 | 1408 | 6.6 | 1,100 | 476 | 7.7 | 20.7 | -- | 9.4 | 108 | -- | -- |
| 08 | 1409 | 9.6 | 1,100 | 477 | 7.7 | 20.7 | -- | 9.5 | 108 | -- | -- |
| 08 | 1412 | 17 | 1,100 | 473 | 7.7 | 20.8 | -- | 9.5 | 108 | -- | -- |
| 08 | 1410 | 23 | 1,100 | 479 | 7.7 | 20.7 | -- | 9.5 | 108 | -- | -- |
| 08 | 1409 | 25 | 1,100 | 472 | 7.7 | 20.7 | -- | 9.5 | 108 | -- | -- |
| 08 | 1415 | 1.0 | 1,500 | 475 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1416 | 3.3 | 1,500 | 476 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1416 | 7.2 | 1,500 | 473 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1417 | 10 | 1,500 | 476 | 7.7 | 21.0 | -- | 9.4 | 108 | -- | -- |
| 08 | 1417 | 17 | 1,500 | 476 | 7.7 | 21.0 | -- | 9.4 | 108 | -- | -- |
| 08 | 1418 | 18 | 1,500 | 469 | 7.7 | 21.1 | -- | 9.3 | 107 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1611 | .1 | 400 | 501 | 8.0 | 31.5 | -- | 8.1 | 112 | -- | -- |
| 14 | 1610 | 3.1 | 400 | 500 | 8.0 | 31.4 | -- | 8.0 | 111 | -- | -- |
| 14 | 1609 | 5.1 | 400 | 501 | 7.9 | 31.4 | -- | 8.0 | 110 | -- | -- |
| 14 | 1609 | 10 | 400 | 499 | 7.9 | 31.3 | -- | 7.9 | 109 | -- | -- |
| 14 | 1608 | 15 | 400 | 505 | 7.9 | 31.3 | -- | 7.8 | 108 | -- | -- |

Table 4. Water-quality data for station 403115080371801, Ohio River at river mile 54.8, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|--------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| July | | | | | | | | | | | |
| 14 | 1601 | 0.1 | 700 | 501 | 8.0 | 31.7 | -- | 8.1 | 113 | 7.8 | 1.0 |
| 14 | 1600 | 2.8 | 700 | 501 | 7.9 | 31.5 | -- | 7.9 | 110 | -- | -- |
| 14 | 1600 | 5.2 | 700 | 500 | 7.9 | 31.3 | -- | 7.9 | 109 | -- | -- |
| 14 | 1559 | 10 | 700 | 500 | 7.9 | 31.3 | -- | 7.9 | 109 | -- | -- |
| 14 | 1559 | 15 | 700 | 501 | 7.8 | 31.3 | -- | 7.7 | 107 | -- | -- |
| 14 | 1558 | 16 | 700 | 501 | 7.8 | 31.2 | -- | 7.7 | 106 | -- | -- |
| 14 | 1551 | .1 | 1,100 | 501 | 8.0 | 31.7 | -- | 8.1 | 113 | -- | -- |
| 14 | 1551 | 3.1 | 1,100 | 501 | 7.9 | 31.6 | -- | 8.0 | 111 | -- | -- |
| 14 | 1550 | 5.1 | 1,100 | 501 | 7.9 | 31.4 | -- | 7.9 | 110 | -- | -- |
| 14 | 1550 | 10 | 1,100 | 501 | 7.9 | 31.3 | -- | 7.8 | 108 | -- | -- |
| 14 | 1549 | 13 | 1,100 | 500 | 7.8 | 31.2 | -- | 7.6 | 104 | -- | -- |
| 14 | 1503 | .2 | 1,500 | 500 | 7.8 | 31.8 | -- | 7.9 | 110 | -- | -- |
| 14 | 1502 | 2.9 | 1,500 | 501 | 7.7 | 31.4 | -- | 7.5 | 103 | -- | -- |
| 14 | 1501 | 5.1 | 1,500 | 501 | 7.7 | 31.3 | -- | 7.5 | 104 | -- | -- |
| 14 | 1501 | 9.9 | 1,500 | 501 | 7.7 | 31.3 | -- | 7.5 | 104 | -- | -- |
| 14 | 1500 | 15 | 1,500 | 499 | 7.7 | 31.3 | -- | 7.4 | 102 | -- | -- |
| 27 | 1553 | .2 | 400 | 535 | 8.1 | 31.9 | -- | 7.9 | 111 | -- | -- |
| 27 | 1554 | 3.0 | 400 | 535 | 8.0 | 31.5 | -- | 8.1 | 112 | -- | -- |
| 27 | 1554 | 4.9 | 400 | 538 | 8.0 | 31.4 | -- | 7.9 | 110 | -- | -- |
| 27 | 1554 | 9.9 | 400 | 534 | 7.9 | 31.3 | -- | 7.7 | 107 | -- | -- |
| 27 | 1555 | 15 | 400 | 540 | 7.7 | 31.0 | -- | 7.3 | 100 | -- | -- |
| 27 | 1555 | 19 | 400 | 535 | 7.7 | 30.9 | -- | 7.2 | 99 | -- | -- |
| 27 | 1546 | .2 | 700 | 537 | 7.9 | 31.6 | 2.5 | 7.4 | 103 | 6.7 | .7 |
| 27 | 1545 | 3.1 | 700 | 538 | 7.8 | 31.4 | -- | 7.5 | 104 | -- | -- |
| 27 | 1544 | 5.1 | 700 | 537 | 7.8 | 31.4 | -- | 7.5 | 104 | -- | -- |
| 27 | 1544 | 10 | 700 | 540 | 7.8 | 30.9 | -- | 7.6 | 104 | -- | -- |
| 27 | 1543 | 15 | 700 | 541 | 7.8 | 30.9 | -- | 7.5 | 103 | -- | -- |
| 27 | 1537 | .2 | 1,100 | 537 | 7.8 | 30.8 | -- | 7.6 | 105 | -- | -- |
| 27 | 1538 | 3.0 | 1,100 | 538 | 7.8 | 30.9 | -- | 7.7 | 105 | -- | -- |
| 27 | 1538 | 4.9 | 1,100 | 540 | 7.8 | 30.9 | -- | 7.6 | 104 | -- | -- |
| 27 | 1539 | 9.9 | 1,100 | 536 | 7.8 | 30.9 | -- | 7.6 | 105 | -- | -- |
| 27 | 1540 | 12 | 1,100 | 536 | 7.8 | 30.9 | -- | 7.6 | 104 | -- | -- |
| 27 | 1530 | .2 | 1,500 | 538 | 7.9 | 30.7 | -- | 7.4 | 101 | -- | -- |
| 27 | 1531 | 3.0 | 1,500 | 538 | 7.8 | 30.8 | -- | 7.3 | 99 | -- | -- |
| 27 | 1532 | 5.2 | 1,500 | 540 | 7.8 | 30.8 | -- | 7.4 | 102 | -- | -- |
| 27 | 1533 | 10 | 1,500 | 538 | 7.8 | 30.8 | -- | 7.5 | 102 | -- | -- |
| 27 | 1533 | 15 | 1,500 | 542 | 7.8 | 30.8 | -- | 7.6 | 105 | -- | -- |
| 27 | 1534 | 18 | 1,500 | 540 | 7.8 | 30.8 | -- | 7.5 | 103 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1407 | .1 | 400 | 518 | 7.6 | 28.0 | -- | 8.0 | 103 | -- | -- |
| 10 | 1406 | 3.0 | 400 | 519 | 7.6 | 28.1 | -- | 8.0 | 104 | -- | -- |
| 10 | 1406 | 5.0 | 400 | 519 | 7.6 | 28.0 | -- | 8.0 | 104 | -- | -- |
| 10 | 1405 | 10 | 400 | 518 | 7.6 | 28.0 | -- | 8.0 | 104 | -- | -- |
| 10 | 1405 | 15 | 400 | 518 | 7.6 | 28.0 | -- | 8.0 | 104 | -- | -- |
| 10 | 1404 | 20 | 400 | 518 | 7.6 | 27.9 | -- | 8.0 | 103 | -- | -- |
| 10 | 1403 | 25 | 400 | 517 | 7.6 | 28.0 | -- | 8.0 | 103 | -- | -- |
| 10 | 1404 | 29 | 400 | 518 | 7.6 | 27.9 | -- | 7.9 | 103 | -- | -- |

Table 4. Water-quality data for station 403115080371801, Ohio River at river mile 54.8, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| August | | | | | | | | | | | |
| 10 | 1413 | 0.1 | 700 | 519 | 7.6 | 28.1 | 3.0 | 8.0 | 104 | -- | -- |
| 10 | 1412 | 3.0 | 700 | 518 | 7.6 | 28.0 | -- | 8.0 | 104 | -- | -- |
| 10 | 1412 | 5.0 | 700 | 518 | 7.6 | 27.9 | -- | 8.0 | 104 | -- | -- |
| 10 | 1412 | 10 | 700 | 517 | 7.6 | 27.9 | -- | 8.0 | 104 | -- | -- |
| 10 | 1411 | 15 | 700 | 517 | 7.6 | 27.8 | -- | 8.0 | 104 | -- | -- |
| 10 | 1421 | 0.0 | 1,100 | 517 | 7.6 | 27.7 | -- | 8.1 | 104 | -- | -- |
| 10 | 1422 | 3.0 | 1,100 | 517 | 7.6 | 27.6 | -- | 8.1 | 104 | -- | -- |
| 10 | 1422 | 5.0 | 1,100 | 518 | 7.6 | 27.6 | -- | 8.1 | 104 | -- | -- |
| 10 | 1422 | 10 | 1,100 | 517 | 7.6 | 27.7 | -- | 8.1 | 104 | -- | -- |
| 10 | 1423 | 15 | 1,100 | 517 | 7.6 | 27.7 | -- | 8.1 | 104 | -- | -- |
| 10 | 1426 | .1 | 1,500 | 518 | 7.6 | 27.5 | -- | 8.1 | 104 | -- | -- |
| 10 | 1426 | 3.0 | 1,500 | 519 | 7.6 | 27.6 | -- | 8.1 | 104 | -- | -- |
| 10 | 1427 | 5.0 | 1,500 | 519 | 7.6 | 27.6 | -- | 8.1 | 104 | -- | -- |
| 10 | 1427 | 10 | 1,500 | 519 | 7.6 | 27.6 | -- | 8.1 | 104 | -- | -- |
| 10 | 1428 | 15 | 1,500 | 519 | 7.6 | 27.6 | -- | 8.0 | 104 | -- | -- |
| 10 | 1429 | 18 | 1,500 | 519 | 7.7 | 27.6 | -- | 8.0 | 103 | -- | -- |
| 24 | 1315 | .1 | 400 | 522 | 7.7 | 29.6 | -- | 7.7 | 103 | -- | -- |
| 24 | 1315 | 2.9 | 400 | 522 | 7.7 | 29.6 | -- | 7.7 | 102 | -- | -- |
| 24 | 1316 | 4.9 | 400 | 522 | 7.7 | 29.6 | -- | 7.6 | 102 | -- | -- |
| 24 | 1316 | 9.8 | 400 | 522 | 7.7 | 29.5 | -- | 7.6 | 101 | -- | -- |
| 24 | 1316 | 15 | 400 | 522 | 7.7 | 29.5 | -- | 7.6 | 101 | -- | -- |
| 24 | 1317 | 20 | 400 | 522 | 7.7 | 29.5 | -- | 7.5 | 101 | -- | -- |
| 24 | 1317 | 25 | 400 | 523 | 7.7 | 29.4 | -- | 7.6 | 102 | -- | -- |
| 24 | 1327 | .2 | 700 | 522 | 7.7 | 29.5 | 3.0 | 7.5 | 100 | -- | -- |
| 24 | 1328 | 3.0 | 700 | 522 | 7.7 | 29.5 | -- | 7.5 | 100 | -- | -- |
| 24 | 1329 | 5.0 | 700 | 522 | 7.7 | 29.5 | -- | 7.5 | 100 | -- | -- |
| 24 | 1331 | 10 | 700 | 522 | 7.7 | 29.5 | -- | 7.5 | 100 | -- | -- |
| 24 | 1330 | 15 | 700 | 522 | 7.7 | 29.5 | -- | 7.5 | 100 | -- | -- |
| 24 | 1334 | .2 | 1,100 | 521 | 7.7 | 29.3 | -- | 7.6 | 101 | -- | -- |
| 24 | 1334 | 3.0 | 1,100 | 522 | 7.7 | 29.4 | -- | 7.7 | 102 | -- | -- |
| 24 | 1335 | 4.9 | 1,100 | 520 | 7.7 | 29.3 | -- | 7.6 | 102 | -- | -- |
| 24 | 1335 | 10 | 1,100 | 528 | 7.7 | 29.3 | -- | 7.7 | 102 | -- | -- |
| 24 | 1336 | 15 | 1,100 | 516 | 7.7 | 29.4 | -- | 7.6 | 102 | -- | -- |
| 24 | 1342 | .2 | 1,500 | 523 | 7.7 | 29.1 | -- | 7.6 | 101 | -- | -- |
| 24 | 1343 | 3.0 | 1,500 | 524 | 7.7 | 29.1 | -- | 7.6 | 101 | -- | -- |
| 24 | 1343 | 5.0 | 1,500 | 524 | 7.7 | 29.1 | -- | 7.7 | 101 | -- | -- |
| 24 | 1344 | 9.9 | 1,500 | 520 | 7.7 | 29.1 | -- | 7.7 | 102 | -- | -- |
| 24 | 1344 | 15 | 1,500 | 521 | 7.7 | 29.1 | -- | 7.6 | 100 | -- | -- |
| 24 | 1336 | 18 | 1,500 | 529 | 7.7 | 29.4 | -- | 7.6 | 101 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1642 | .1 | 400 | 448 | 0.6 | 24.7 | -- | 8.2 | 101 | -- | -- |
| 21 | 1642 | 2.8 | 400 | 49 | 7.6 | 24.8 | -- | 8.2 | 101 | -- | -- |
| 21 | 1643 | 5.3 | 400 | 449 | 7.6 | 24.8 | -- | 8.2 | 101 | -- | -- |
| 21 | 1643 | 10 | 400 | 449 | 7.6 | 24.7 | -- | 8.2 | 101 | -- | -- |
| 21 | 1644 | 15 | 400 | 449 | 7.6 | 24.7 | -- | 8.2 | 100 | -- | -- |
| 21 | 1645 | 20 | 400 | 449 | 7.6 | 24.7 | -- | 8.3 | 101 | -- | -- |
| 21 | 1646 | 25 | 400 | 449 | 7.6 | 24.7 | -- | 8.2 | 100 | -- | -- |
| 21 | 1647 | 28 | 400 | 449 | 7.6 | 24.5 | -- | 8.2 | 101 | -- | -- |

Table 4. Water-quality data for station 403115080371801, Ohio River at river mile 54.8, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| September | | | | | | | | | | | |
| 21 | 1630 | 0.0 | 700 | 448 | 7.6 | 24.9 | 3.5 | 8.3 | 102 | 3.6 | 3.6 |
| 21 | 1632 | 2.9 | 700 | 447 | 7.6 | 24.9 | -- | 8.3 | 102 | -- | -- |
| 21 | 1631 | 4.9 | 700 | 450 | 7.6 | 24.9 | -- | 8.3 | 102 | -- | -- |
| 21 | 1632 | 10 | 700 | 447 | 7.6 | 24.9 | -- | 8.2 | 101 | -- | -- |
| 21 | 1633 | 15 | 700 | 450 | 7.6 | 24.9 | -- | 8.2 | 101 | -- | -- |
| 21 | 1635 | 17 | 700 | 451 | 7.6 | 24.8 | -- | 8.2 | 101 | -- | -- |
| 21 | 1621 | .2 | 1,100 | 451 | 7.6 | 24.8 | -- | 8.3 | 102 | -- | -- |
| 21 | 1622 | 3.1 | 1,100 | 448 | 7.6 | 24.8 | -- | 8.2 | 101 | -- | -- |
| 21 | 1623 | 5.0 | 1,100 | 451 | 7.6 | 24.8 | -- | 8.3 | 102 | -- | -- |
| 21 | 1625 | 9.9 | 1,100 | 452 | 7.6 | 24.8 | -- | 8.3 | 101 | -- | -- |
| 21 | 1627 | 12 | 1,100 | 451 | 7.6 | 24.8 | -- | 8.2 | 101 | -- | -- |
| 21 | 1534 | .1 | 1,400 | 447 | 7.6 | 24.5 | -- | 8.4 | 103 | -- | -- |
| 21 | 1535 | 3.0 | 1,400 | 446 | 7.6 | 24.5 | -- | 8.4 | 103 | -- | -- |
| 21 | 1536 | 10 | 1,400 | 446 | 7.6 | 24.5 | -- | 8.4 | 102 | -- | -- |
| 21 | 1537 | 15 | 1,400 | 448 | 7.6 | 24.5 | -- | 8.4 | 102 | -- | -- |
| 21 | 1538 | 16 | 1,100 | 447 | 7.6 | 24.5 | -- | 8.3 | 102 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1607 | .1 | 400 | 429 | 7.6 | 17.6 | -- | 10.5 | 110 | -- | -- |
| 05 | 1608 | 3.0 | 400 | 430 | 7.6 | 17.6 | -- | 10.5 | 111 | -- | -- |
| 05 | 1610 | 9.8 | 400 | 427 | 7.6 | 17.6 | -- | 10.5 | 110 | -- | -- |
| 05 | 1611 | 15 | 400 | 431 | 7.6 | 17.7 | -- | 10.5 | 111 | -- | -- |
| 05 | 1613 | 20 | 400 | 426 | 7.6 | 17.6 | -- | 10.5 | 110 | -- | -- |
| 05 | 1613 | 25 | 400 | 422 | 7.6 | 17.6 | -- | 10.5 | 111 | -- | -- |
| 05 | 1614 | 30 | 400 | 426 | 7.6 | 17.6 | -- | 10.5 | 111 | -- | -- |
| 05 | 1601 | .3 | 700 | 430 | 7.6 | 18.0 | 4.5 | 10.4 | 111 | -- | -- |
| 05 | 1600 | 2.9 | 700 | 433 | 7.6 | 18.0 | -- | 10.4 | 111 | -- | -- |
| 05 | 1600 | 4.9 | 700 | 429 | 7.6 | 18.0 | -- | 10.4 | 111 | -- | -- |
| 05 | 1559 | 10 | 700 | 434 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1600 | 15 | 700 | 430 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1557 | 18 | 700 | 439 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1550 | .2 | 1,100 | 433 | 7.6 | 18.1 | -- | 10.4 | 110 | -- | -- |
| 05 | 1551 | 3.0 | 1,100 | 434 | 7.6 | 18.1 | -- | 10.5 | 111 | -- | -- |
| 05 | 1552 | 4.9 | 1,100 | 430 | 7.6 | 17.6 | -- | 10.5 | 111 | -- | -- |
| 05 | 1551 | 4.9 | 1,100 | 430 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1552 | 9.7 | 1,100 | 439 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1553 | 15 | 1,100 | 435 | 7.6 | 18.1 | -- | 10.5 | 112 | -- | -- |
| 05 | 1537 | .4 | 1,500 | 435 | 7.6 | 18.1 | -- | 10.4 | 110 | -- | -- |
| 05 | 1536 | 2.7 | 1,500 | 435 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1535 | 4.7 | 1,500 | 435 | 7.5 | 18.2 | -- | 10.4 | 111 | -- | -- |
| 05 | 1534 | 9.7 | 1,500 | 436 | 7.5 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1534 | 15 | 1,500 | 435 | 7.5 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 05 | 1537 | 18 | 1,500 | 435 | 7.6 | 18.1 | -- | 10.4 | 111 | -- | -- |
| 28 | 1416 | .2 | 400 | 380 | 7.5 | 15.3 | -- | 10.9 | 111 | -- | -- |
| 28 | 1417 | 3.3 | 400 | 379 | 7.5 | 15.3 | -- | 10.9 | 111 | -- | -- |
| 28 | 1418 | 4.9 | 400 | 380 | 7.5 | 15.3 | -- | 10.9 | 111 | -- | -- |
| 28 | 1419 | 9.2 | 400 | 380 | 7.5 | 15.4 | -- | 10.9 | 111 | -- | -- |
| 28 | 1420 | 15 | 400 | 380 | 7.5 | 15.3 | -- | 10.9 | 112 | -- | -- |
| 28 | 1420 | 18 | 400 | 380 | 7.5 | 15.3 | -- | 10.9 | 111 | -- | -- |

Table 4. Water-quality data for station 403115080371801, Ohio River at river mile 54.8, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|---------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| October | | | | | | | | | | | |
| 28 | 1358 | 0.1 | 700 | 379 | 7.5 | 15.2 | -- | 10.8 | 110 | 3.0 | 0.2 |
| 28 | 1359 | 3.3 | 700 | 379 | 7.5 | 15.3 | -- | 10.8 | 110 | 3.1 | .2 |
| 28 | 1400 | 5.2 | 700 | 379 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1401 | 10 | 700 | 379 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1402 | 15 | 700 | 380 | 7.5 | 15.1 | -- | 10.8 | 110 | 2.8 | .2 |
| 28 | 1403 | 17 | 700 | 380 | 7.5 | 15.2 | -- | 10.8 | 110 | -- | -- |
| 28 | 1350 | .3 | 1,100 | 380 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1351 | 3.2 | 1,100 | 379 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1352 | 5.0 | 1,100 | 380 | 7.5 | 15.1 | -- | 10.9 | 110 | -- | -- |
| 28 | 1353 | 9.7 | 1,100 | 379 | 7.5 | 15.1 | -- | 10.9 | 110 | -- | -- |
| 28 | 1354 | 15 | 1,100 | 379 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1354 | 18 | 1,100 | 379 | 7.5 | 15.1 | -- | 10.8 | 110 | -- | -- |
| 28 | 1314 | .3 | 1,500 | 379 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |
| 28 | 1315 | 2.7 | 1,500 | 379 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |
| 28 | 1316 | 5.2 | 1,500 | 374 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |
| 28 | 1317 | 10 | 1,500 | 379 | 7.5 | 15.2 | -- | 10.7 | 109 | -- | -- |
| 28 | 1319 | 12 | 1,500 | 374 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |

Table 5. Water-quality data for station 403045080370901, Ohio River at river mile 55.4, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|---|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1558 | 3.3 | 700 | 413 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| 26 | 1558 | 8.9 | 700 | 413 | 7.6 | 20.4 | -- | 9.8 | 111 | -- | -- |
| 26 | 1559 | 18 | 700 | 414 | 7.6 | 20.4 | -- | 9.9 | 111 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1521 | 1.0 | 700 | 473 | 7.7 | 20.8 | -- | 9.2 | 105 | -- | -- |
| 08 | 1522 | 3.6 | 700 | 473 | 7.7 | 20.8 | -- | 9.2 | 105 | -- | -- |
| 08 | 1523 | 11 | 700 | 474 | 7.7 | 20.7 | -- | 9.1 | 104 | -- | -- |
| 08 | 1522 | 20 | 700 | 474 | 7.7 | 20.7 | -- | 9.1 | 105 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1440 | .1 | 700 | 501 | 8.2 | 31.4 | -- | 8.2 | 113 | -- | -- |
| 14 | 1439 | 2.9 | 700 | 501 | 8.2 | 31.3 | -- | 8.1 | 111 | -- | -- |
| 14 | 1439 | 6.9 | 700 | 501 | 8.1 | 31.3 | -- | 7.8 | 108 | -- | -- |
| 14 | 1437 | 14 | 700 | 504 | 8.0 | 31.1 | -- | 7.7 | 106 | -- | -- |
| 27 | 1559 | .3 | 700 | 538 | 7.8 | 31.1 | -- | 7.3 | 100 | -- | -- |
| 27 | 1600 | 3.1 | 700 | 540 | 7.8 | 31.0 | -- | 7.5 | 103 | -- | -- |
| 27 | 1601 | 8.4 | 700 | 537 | 7.8 | 31.0 | -- | 7.4 | 102 | -- | -- |
| 27 | 1600 | 16 | 700 | 538 | 7.7 | 30.9 | -- | 7.3 | 100 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1358 | .1 | 700 | 520 | 7.6 | 27.8 | -- | 8.0 | 104 | -- | -- |
| 10 | 1358 | 3.0 | 700 | 521 | 7.6 | 27.8 | -- | 8.0 | 103 | -- | -- |
| 10 | 1359 | 8.4 | 700 | 521 | 7.6 | 27.6 | -- | 7.9 | 102 | -- | -- |
| 10 | 1359 | 17 | 700 | 522 | 7.6 | 27.5 | -- | 7.9 | 101 | -- | -- |
| 24 | 1310 | .3 | 700 | 522 | 7.7 | 29.3 | -- | 7.7 | 103 | -- | -- |
| 24 | 1310 | 3.0 | 700 | 522 | 7.6 | 29.2 | -- | 7.6 | 102 | -- | -- |
| 24 | 1311 | 6.8 | 700 | 523 | 7.6 | 29.2 | -- | 7.6 | 101 | -- | -- |
| 24 | 1311 | 13 | 700 | 522 | 7.6 | 29.1 | -- | 7.5 | 100 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1421 | .1 | 700 | 450 | 7.6 | 24.9 | -- | 8.5 | 105 | -- | -- |
| 21 | 1421 | 3.2 | 700 | 452 | 7.6 | 24.8 | -- | 8.5 | 104 | -- | -- |
| 21 | 1422 | 7.3 | 700 | 448 | 7.6 | 24.7 | -- | 8.4 | 103 | -- | -- |
| 21 | 1422 | 16 | 700 | 453 | 7.6 | 24.7 | -- | 8.3 | 102 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1430 | .3 | 700 | 437 | 7.6 | 17.8 | -- | 10.2 | 108 | -- | -- |
| 05 | 1430 | 2.9 | 700 | 436 | 7.6 | 17.7 | -- | 10.6 | 112 | -- | -- |
| 05 | 1429 | 8.3 | 700 | 432 | 7.6 | 17.7 | -- | 10.3 | 109 | -- | -- |
| 05 | 1431 | 17 | 700 | 433 | 7.6 | 17.7 | -- | 10.5 | 74 | -- | -- |
| 28 | 1304 | .1 | 700 | 378 | 7.5 | 15.2 | -- | 10.8 | 110 | -- | -- |
| 28 | 1305 | 2.5 | 700 | 377 | 7.5 | 15.2 | -- | 10.8 | 110 | -- | -- |
| 28 | 1306 | 9.0 | 700 | 376 | 7.5 | 15.3 | -- | 10.8 | 110 | -- | -- |
| 28 | 1306 | 16 | 700 | 381 | 7.5 | 15.2 | -- | 10.7 | 109 | -- | -- |

Table 6. Water-quality data for station 402930080363101, Ohio River at river mile 57.0, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1551 | 3.3 | 700 | 408 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| 26 | 1550 | 13 | 700 | 408 | 7.5 | 20.3 | -- | 9.9 | 111 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1529 | .7 | 700 | 474 | 7.7 | 21.0 | -- | 9.1 | 105 | -- | -- |
| 08 | 1530 | 4.3 | 700 | 474 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| 08 | 1531 | 12 | 700 | 474 | 7.7 | 20.9 | -- | 9.1 | 104 | -- | -- |
| 08 | 1530 | 21 | 700 | 474 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1428 | .1 | 700 | 498 | 8.1 | 31.3 | -- | 7.7 | 106 | -- | -- |
| 14 | 1428 | 3.0 | 700 | 498 | 8.1 | 31.2 | -- | 7.8 | 107 | -- | -- |
| 14 | 1430 | 9.4 | 700 | 497 | 8.0 | 31.1 | -- | 7.7 | 105 | -- | -- |
| 14 | 1429 | 19 | 700 | 497 | 8.0 | 31.1 | -- | 7.5 | 104 | -- | -- |
| 27 | 1604 | .3 | 700 | 537 | 7.9 | 31.2 | -- | 7.7 | 106 | -- | -- |
| 27 | 1605 | 3.2 | 700 | 537 | 7.9 | 31.2 | -- | 7.7 | 106 | -- | -- |
| 27 | 1606 | 12 | 700 | 536 | 7.8 | 31.0 | -- | 7.5 | 103 | -- | -- |
| 27 | 1606 | 24 | 700 | 539 | 7.6 | 30.6 | -- | 6.6 | 90 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1340 | .1 | 700 | 525 | 7.6 | 27.2 | -- | 8.0 | 102 | -- | -- |
| 10 | 1341 | 3.0 | 700 | 526 | 7.6 | 27.2 | -- | 7.9 | 101 | -- | -- |
| 10 | 1341 | 9.2 | 700 | 527 | 7.6 | 27.2 | -- | 7.9 | 101 | -- | -- |
| 10 | 1342 | 18 | 700 | 526 | 7.6 | 27.2 | -- | 7.8 | 100 | -- | -- |
| 24 | 1301 | .1 | 700 | 510 | 7.6 | 28.7 | -- | 7.4 | 97 | -- | -- |
| 24 | 1302 | 3.1 | 700 | 520 | 7.6 | 28.8 | -- | 7.4 | 98 | -- | -- |
| 24 | 1305 | 12 | 700 | 520 | 7.6 | 28.7 | -- | 7.4 | 98 | -- | -- |
| 24 | 1304 | 23 | 700 | 520 | 7.6 | 28.7 | -- | 7.4 | 97 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1413 | .1 | 700 | 445 | 7.6 | 24.3 | -- | 8.3 | 101 | -- | -- |
| 21 | 1413 | 3.3 | 700 | 446 | 7.6 | 24.3 | -- | 8.3 | 101 | -- | -- |
| 21 | 1414 | 9.0 | 700 | 446 | 7.6 | 24.2 | -- | 8.2 | 99 | -- | -- |
| 21 | 1414 | 17 | 700 | 447 | 7.6 | 24.2 | -- | 8.2 | 100 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1419 | .2 | 700 | 443 | 7.5 | 17.9 | -- | 10.4 | 110 | -- | -- |
| 05 | 1420 | 3.2 | 700 | 442 | 7.5 | 17.9 | -- | 10.3 | 109 | -- | -- |
| 05 | 1422 | 13 | 700 | 451 | 7.5 | 17.9 | -- | 10.3 | 109 | -- | -- |
| 05 | 1421 | 24 | 700 | 437 | 7.5 | 17.9 | -- | 10.4 | 110 | -- | -- |
| 28 | 1253 | .2 | 700 | 373 | 7.5 | 15.2 | -- | 10.7 | 109 | -- | -- |
| 28 | 1254 | 2.9 | 700 | 373 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |
| 28 | 1255 | 11 | 700 | 377 | 7.5 | 15.2 | -- | 10.8 | 109 | -- | -- |
| 28 | 1256 | 20 | 700 | 384 | 7.5 | 15.2 | -- | 10.8 | 110 | -- | -- |

Table 7. Water-quality data for station 402654080361501, Ohio River at river mile 60.3, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1510 | 3.3 | 400 | 407 | 7.5 | 20.4 | 1.0 | 9.8 | 109 | -- | -- |
| 26 | 1511 | 6.6 | 400 | 409 | 7.5 | 20.4 | -- | 9.7 | 109 | -- | -- |
| 26 | 1510 | 9.9 | 400 | 404 | 7.5 | 20.4 | -- | 9.7 | 109 | -- | -- |
| 26 | 1509 | 16 | 400 | 403 | 7.5 | 20.3 | -- | 9.7 | 108 | -- | -- |
| 26 | 1512 | 23 | 400 | 407 | 7.6 | 20.3 | -- | 9.7 | 108 | -- | -- |
| 26 | 1523 | 3.3 | 700 | 406 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| 26 | 1520 | 6.6 | 700 | 408 | 7.6 | 20.5 | -- | 9.8 | 110 | -- | -- |
| 26 | 1521 | 9.9 | 700 | 408 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| 26 | 1522 | 16 | 700 | 406 | 7.6 | 20.4 | -- | 9.8 | 110 | 6.0 | 0.5 |
| 26 | 1522 | 23 | 700 | 402 | 7.6 | 20.3 | -- | 9.8 | 110 | -- | -- |
| 26 | 1523 | 30 | 700 | 408 | 7.6 | 20.3 | -- | 9.8 | 110 | -- | -- |
| 26 | 1524 | 33 | 700 | 411 | 7.6 | 20.3 | -- | 9.8 | 109 | -- | -- |
| 26 | 1527 | 3.3 | 1,000 | 407 | 7.6 | 20.4 | -- | 9.9 | 110 | -- | -- |
| 26 | 1527 | 6.6 | 1,000 | 406 | 7.6 | 20.4 | -- | 9.9 | 111 | -- | -- |
| 26 | 1528 | 9.9 | 1,000 | 406 | 7.6 | 20.4 | -- | 9.9 | 111 | -- | -- |
| 26 | 1530 | 14 | 1,000 | 404 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1547 | 1.0 | 400 | 472 | 7.7 | 21.0 | -- | 9.0 | 103 | -- | -- |
| 08 | 1547 | 3.3 | 400 | 472 | 7.7 | 21.0 | -- | 9.1 | 105 | -- | -- |
| 08 | 1548 | 6.6 | 400 | 473 | 7.7 | 21.0 | -- | 9.1 | 105 | -- | -- |
| 08 | 1549 | 8.6 | 400 | 473 | 7.7 | 20.9 | -- | 9.0 | 104 | -- | -- |
| 08 | 1549 | 15 | 400 | 474 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| 08 | 1605 | 16 | 400 | 475 | 7.7 | 21.3 | -- | 9.0 | 104 | -- | -- |
| 08 | 1606 | 24 | 400 | 477 | 7.7 | 21.3 | -- | 9.2 | 105 | -- | -- |
| 08 | 1606 | 31 | 400 | 471 | 7.7 | 21.2 | -- | 9.0 | 104 | -- | -- |
| 08 | 1600 | .7 | 700 | 474 | 7.7 | 20.9 | .2 | 9.2 | 105 | -- | -- |
| 08 | 1556 | 3.3 | 700 | 472 | 7.7 | 20.9 | -- | 9.0 | 104 | -- | -- |
| 08 | 1555 | 6.6 | 700 | 472 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| 08 | 1555 | 9.9 | 700 | 478 | 7.7 | 20.9 | -- | 9.0 | 104 | -- | -- |
| 08 | 1554 | 16 | 700 | 473 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| 08 | 1554 | 22 | 700 | 481 | 7.7 | 20.9 | -- | 9.2 | 105 | -- | -- |
| 08 | 1553 | 31 | 700 | 482 | 7.7 | 20.9 | -- | 9.1 | 105 | 7.6 | .5 |
| 08 | 1552 | 33 | 700 | 474 | 7.7 | 20.9 | -- | 9.1 | 105 | -- | -- |
| 08 | 1603 | 1.0 | 1,000 | 470 | 7.7 | 21.3 | -- | 9.1 | 106 | -- | -- |
| 08 | 1603 | 4.3 | 1,000 | 474 | 7.7 | 21.3 | -- | 9.1 | 105 | -- | -- |
| 08 | 1604 | 7.2 | 1,000 | 474 | 7.7 | 21.3 | -- | 9.1 | 105 | -- | -- |
| 08 | 1604 | 9.9 | 1,000 | 472 | 7.7 | 21.3 | -- | 9.1 | 105 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1340 | .1 | 400 | 496 | 7.8 | 31.2 | -- | 7.2 | 99 | -- | -- |
| 14 | 1339 | 3.0 | 400 | 496 | 7.7 | 31.2 | -- | 7.1 | 98 | -- | -- |
| 14 | 1339 | 5.2 | 400 | 498 | 7.7 | 31.2 | -- | 7.1 | 98 | -- | -- |
| 14 | 1338 | 10 | 400 | 497 | 7.7 | 31.2 | -- | 7.0 | 96 | -- | -- |
| 14 | 1336 | 14 | 400 | 499 | 7.7 | 31.0 | -- | 6.9 | 94 | -- | -- |
| 14 | 1324 | 22 | 400 | 497 | 7.8 | 31.0 | -- | 7.1 | 98 | -- | -- |

Table 7. Water-quality data for station 402654080361501, Ohio River at river mile 60.3, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|--------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| July | | | | | | | | | | | |
| 14 | 1334 | 0.1 | 700 | 497 | 7.8 | 31.2 | 3.0 | 7.2 | 100 | -- | -- |
| 14 | 1333 | 3.3 | 700 | 496 | 7.8 | 31.2 | -- | 7.3 | 100 | -- | -- |
| 14 | 1333 | 5.2 | 700 | 499 | 7.8 | 31.2 | -- | 7.3 | 100 | -- | -- |
| 14 | 1332 | 10 | 700 | 495 | 7.7 | 31.1 | -- | 7.1 | 98 | -- | -- |
| 14 | 1331 | 14 | 700 | 492 | 7.7 | 31.1 | -- | 6.9 | 95 | -- | -- |
| 14 | 1327 | .1 | 1,000 | 495 | 7.8 | 31.3 | -- | 7.3 | 100 | -- | -- |
| 14 | 1326 | 3.0 | 1,000 | 498 | 7.7 | 31.2 | -- | 7.2 | 99 | -- | -- |
| 14 | 1326 | 4.9 | 1,000 | 495 | 7.7 | 31.2 | -- | 7.1 | 97 | -- | -- |
| 14 | 1325 | 10 | 1,000 | 495 | 7.7 | 31.1 | -- | 7.0 | 96 | -- | -- |
| 14 | 1325 | 15 | 1,000 | 496 | 7.7 | 31.1 | -- | 7.1 | 97 | -- | -- |
| 14 | 1325 | 20 | 1,000 | 498 | 7.7 | 31.1 | -- | 7.1 | 97 | -- | -- |
| 27 | 1629 | .3 | 400 | 527 | 8.7 | 31.7 | -- | 10.4 | 145 | -- | -- |
| 27 | 1630 | 3.3 | 400 | 524 | 8.3 | 30.8 | -- | 7.5 | 103 | -- | -- |
| 27 | 1631 | 5.2 | 400 | 526 | 7.8 | 30.4 | -- | 7.3 | 100 | -- | -- |
| 27 | 1631 | 10 | 400 | 526 | 7.7 | 30.4 | -- | 7.1 | 97 | -- | -- |
| 27 | 1632 | 15 | 400 | 526 | 7.7 | 30.4 | -- | 7.1 | 97 | -- | -- |
| 27 | 1621 | .3 | 700 | 527 | 8.7 | 31.6 | -- | 10.1 | 140 | -- | -- |
| 27 | 1622 | 2.9 | 700 | 528 | 8.7 | 31.6 | -- | 10.0 | 139 | -- | -- |
| 27 | 1622 | 5.0 | 700 | 527 | 8.6 | 31.4 | -- | 9.8 | 136 | -- | -- |
| 27 | 1623 | 9.8 | 700 | 530 | 8.1 | 30.7 | -- | 8.0 | 109 | -- | -- |
| 27 | 1624 | 16 | 700 | 529 | 7.8 | 30.5 | -- | 7.4 | 101 | -- | -- |
| 27 | 1614 | .3 | 1,000 | 524 | 8.6 | 31.3 | -- | 9.7 | 134 | -- | -- |
| 27 | 1615 | 3.1 | 1,000 | 525 | 8.4 | 31.1 | -- | 9.2 | 126 | -- | -- |
| 27 | 1616 | 5.1 | 1,000 | 525 | 8.4 | 31.1 | -- | 9.3 | 128 | -- | -- |
| 27 | 1617 | 10 | 1,000 | 528 | 8.0 | 30.7 | -- | 7.8 | 107 | -- | -- |
| 27 | 1618 | 15 | 1,000 | 525 | 7.9 | 30.5 | -- | 7.7 | 105 | -- | -- |
| 27 | 1618 | 18 | 1,000 | 527 | 7.9 | 30.5 | -- | 6.9 | 94 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1323 | .1 | 400 | 539 | 7.6 | 27.3 | -- | 7.8 | 100 | -- | -- |
| 10 | 1323 | 3.0 | 400 | 539 | 7.6 | 27.3 | -- | 7.8 | 100 | -- | -- |
| 10 | 1321 | 5.0 | 400 | 539 | 7.6 | 27.3 | -- | 7.9 | 101 | -- | -- |
| 10 | 1320 | 10 | 400 | 539 | 7.6 | 27.2 | -- | 7.7 | 99 | -- | -- |
| 10 | 1319 | 14 | 400 | 538 | 7.6 | 27.2 | -- | 7.7 | 98 | -- | -- |
| 10 | 1315 | .1 | 700 | 539 | 7.6 | 27.3 | 3.5 | 7.8 | 100 | -- | -- |
| 10 | 1315 | 3.0 | 700 | 539 | 7.6 | 27.3 | -- | 7.8 | 100 | -- | -- |
| 10 | 1314 | 5.0 | 700 | 539 | 7.6 | 27.3 | -- | 7.7 | 99 | -- | -- |
| 10 | 1314 | 10 | 700 | 539 | 7.6 | 27.3 | -- | 7.6 | 98 | -- | -- |
| 10 | 1312 | 16 | 700 | 539 | 7.6 | 27.2 | -- | 7.6 | 97 | -- | -- |
| 10 | 1309 | .1 | 1,000 | 539 | 7.6 | 27.3 | -- | 7.9 | 102 | -- | -- |
| 10 | 1308 | 3.0 | 1,000 | 539 | 7.6 | 27.3 | -- | 7.9 | 101 | -- | -- |
| 10 | 1308 | 5.0 | 1,000 | 539 | 7.6 | 27.3 | -- | 7.9 | 101 | -- | -- |
| 10 | 1307 | 10 | 1,000 | 539 | 7.6 | 27.3 | -- | 7.9 | 101 | -- | -- |
| 10 | 1306 | 15 | 1,000 | 539 | 7.6 | 27.2 | -- | 7.9 | 101 | -- | -- |
| 10 | 1306 | 20 | 1,000 | 539 | 7.6 | 27.2 | -- | 7.9 | 101 | -- | -- |
| 10 | 1305 | 25 | 1,000 | 539 | 7.6 | 27.2 | -- | 7.9 | 101 | -- | -- |
| 10 | 1303 | 30 | 1,000 | 539 | 7.6 | 27.2 | -- | 7.8 | 100 | -- | -- |

Table 7. Water-quality data for station 402654080361501, Ohio River at river mile 60.3, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|------------------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| August | | | | | | | | | | | |
| 24 | 1250 | 0.2 | 400 | 512 | 7.8 | 28.6 | -- | 7.8 | 102 | -- | -- |
| 24 | 1250 | 2.9 | 400 | 510 | 7.7 | 28.6 | -- | 7.8 | 102 | -- | -- |
| 24 | 1251 | 4.9 | 400 | 512 | 7.7 | 28.5 | -- | 7.7 | 101 | -- | -- |
| 24 | 1251 | 9.9 | 400 | 512 | 7.6 | 28.5 | -- | 7.5 | 98 | -- | -- |
| 24 | 1252 | 14 | 400 | 510 | 7.6 | 28.5 | -- | 7.4 | 97 | -- | -- |
| 24 | 1244 | .2 | 700 | 511 | 7.7 | 28.5 | 3.0 | 7.7 | 101 | -- | -- |
| 24 | 1243 | 2.9 | 700 | 512 | 7.7 | 28.5 | -- | 7.6 | 100 | -- | -- |
| 24 | 1243 | 4.9 | 700 | 511 | 7.6 | 28.5 | -- | 7.6 | 99 | -- | -- |
| 24 | 1242 | 10 | 700 | 515 | 7.6 | 28.5 | -- | 7.4 | 97 | -- | -- |
| 24 | 1241 | 15 | 700 | 510 | 7.6 | 28.5 | -- | 7.4 | 97 | -- | -- |
| 24 | 1241 | 20 | 700 | 517 | 7.6 | 28.4 | -- | 7.4 | 96 | 11.0 | 1.1 |
| 24 | 1240 | 23 | 700 | 515 | 7.6 | 28.4 | -- | 7.4 | 97 | -- | -- |
| 24 | 1231 | .2 | 1,000 | 510 | 7.7 | 28.5 | -- | 7.7 | 101 | -- | -- |
| 24 | 1232 | 3.0 | 1,000 | 513 | 7.7 | 28.5 | -- | 7.7 | 101 | -- | -- |
| 24 | 1232 | 4.9 | 1,000 | 511 | 7.7 | 28.5 | -- | 7.8 | 102 | -- | -- |
| 24 | 1234 | 9.8 | 1,000 | 508 | 7.7 | 28.5 | -- | 7.6 | 100 | -- | -- |
| 24 | 1235 | 15 | 1,000 | 513 | 7.7 | 28.5 | -- | 7.7 | 100 | -- | -- |
| 24 | 1235 | 20 | 1,000 | 510 | 7.7 | 28.5 | -- | 7.7 | 100 | -- | -- |
| 24 | 1236 | 26 | 1,000 | 517 | 7.7 | 28.5 | -- | 7.7 | 101 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1402 | .1 | 400 | 441 | 7.6 | 24.5 | -- | 8.1 | 99 | -- | -- |
| 21 | 1403 | 3.1 | 400 | 441 | 7.5 | 24.4 | -- | 8.1 | 99 | -- | -- |
| 21 | 1403 | 5.0 | 400 | 441 | 7.6 | 24.4 | -- | 8.1 | 98 | -- | -- |
| 21 | 1404 | 9.7 | 400 | 442 | 7.6 | 24.4 | -- | 8.1 | 98 | -- | -- |
| 21 | 1405 | 14 | 400 | 442 | 7.6 | 24.4 | -- | 8.0 | 98 | -- | -- |
| 21 | 1400 | .1 | 700 | 440 | 7.6 | 24.5 | -- | 8.1 | 99 | -- | -- |
| 21 | 1400 | 2.8 | 700 | 441 | 7.6 | 24.5 | -- | 8.1 | 99 | -- | -- |
| 21 | 1359 | 4.8 | 700 | 441 | 7.6 | 24.5 | -- | 8.0 | 98 | -- | -- |
| 21 | 1358 | 10 | 700 | 439 | 7.5 | 24.5 | -- | 8.0 | 98 | -- | -- |
| 21 | 1358 | 15 | 700 | 440 | 7.5 | 24.5 | -- | 8.0 | 98 | -- | -- |
| 21 | 1357 | 20 | 700 | 440 | 7.5 | 24.5 | -- | 8.0 | 98 | -- | -- |
| 21 | 1357 | 25 | 700 | 438 | 7.6 | 24.5 | -- | 8.0 | 97 | -- | -- |
| 21 | 1356 | 30 | 700 | 440 | 7.6 | 24.5 | -- | 8.0 | 97 | 3.4 | .3 |
| 21 | 1355 | 35 | 700 | 441 | 7.6 | 24.5 | -- | 7.9 | 96 | -- | -- |
| 21 | 1343 | .2 | 1,000 | 439 | 7.6 | 24.5 | -- | 8.0 | 98 | -- | -- |
| 21 | 1344 | 2.9 | 1,000 | 440 | 7.6 | 24.5 | -- | 8.1 | 98 | -- | -- |
| 21 | 1344 | 5.0 | 1,000 | 440 | 7.6 | 24.5 | -- | 8.1 | 98 | -- | -- |
| 21 | 1345 | 10 | 1,000 | 441 | 7.6 | 24.4 | -- | 8.1 | 99 | -- | -- |
| 21 | 1344 | 15 | 1,000 | 440 | 7.6 | 24.4 | -- | 8.1 | 99 | -- | -- |
| 21 | 1343 | 17 | 1,000 | 440 | 7.6 | 24.4 | -- | 8.1 | 99 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1409 | .2 | 400 | 451 | 7.5 | 17.9 | -- | 10.2 | 108 | -- | -- |
| 05 | 1408 | 3.1 | 400 | 451 | 7.5 | 17.9 | -- | 10.2 | 108 | -- | -- |
| 05 | 1408 | 5.2 | 400 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1407 | 11 | 400 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1405 | 15 | 400 | 451 | 7.5 | 17.8 | -- | 10.3 | 109 | -- | -- |

Table 7. Water-quality data for station 402654080361501, Ohio River at river mile 60.3, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|---------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| October | | | | | | | | | | | |
| 05 | 1403 | 0.1 | 700 | 451 | 7.5 | 17.9 | 3.0 | 10.1 | 107 | -- | -- |
| 05 | 1402 | 2.8 | 700 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1402 | 5.2 | 700 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1401 | 10 | 700 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1400 | 15 | 700 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | 3.1 | .3 |
| 05 | 1359 | 20 | 700 | 450 | 7.5 | 17.8 | -- | 10.2 | 107 | -- | -- |
| 05 | 1358 | 25 | 700 | 450 | 7.5 | 17.8 | -- | 10.2 | 108 | -- | -- |
| 05 | 1357 | 30 | 700 | 450 | 7.5 | 17.8 | -- | 10.2 | 107 | -- | -- |
| 05 | 1357 | 33 | 700 | 450 | 7.5 | 17.8 | -- | 10.2 | 107 | -- | -- |
| 05 | 1345 | .2 | 1,000 | 455 | 7.5 | 18.0 | -- | 10.0 | 106 | -- | -- |
| 05 | 1349 | 3.2 | 1,000 | 453 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1350 | 5.1 | 1,000 | 454 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1350 | 10 | 1,000 | 454 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1351 | 15 | 1,000 | 454 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1352 | 20 | 1,000 | 456 | 7.5 | 18.0 | -- | 10.0 | 106 | -- | -- |
| 05 | 1353 | 25 | 1,000 | 455 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1353 | 27 | 1,000 | 456 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 28 | 1153 | .4 | 400 | 362 | 7.5 | 14.7 | -- | 10.6 | 106 | -- | -- |
| 28 | 1154 | 2.8 | 400 | 363 | 7.5 | 14.7 | -- | 10.6 | 107 | -- | -- |
| 28 | 1155 | 4.8 | 400 | 364 | 7.5 | 14.7 | -- | 10.6 | 107 | -- | -- |
| 28 | 1157 | 10 | 400 | 357 | 7.5 | 14.7 | -- | 10.6 | 107 | -- | -- |
| 28 | 1159 | 14 | 400 | 355 | 7.5 | 14.7 | -- | 10.5 | 106 | -- | -- |
| 28 | 1146 | .1 | 700 | 366 | 7.5 | 15.0 | 3.5 | 10.6 | 107 | -- | -- |
| 28 | 1147 | 2.7 | 700 | 368 | 7.5 | 15.0 | -- | 10.6 | 108 | 3.0 | 0.2 |
| 28 | 1148 | 5.0 | 700 | 361 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1149 | 9.9 | 700 | 356 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1150 | 15 | 700 | 368 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1151 | 21 | 700 | 353 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1152 | 25 | 700 | 362 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1152 | 29 | 700 | 362 | 7.5 | 15.0 | -- | 10.6 | 108 | -- | -- |
| 28 | 1138 | .5 | 1,000 | 362 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1139 | 3.0 | 1,000 | 362 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1140 | 4.9 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1141 | 10 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1142 | 15 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1143 | 20 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1144 | 25 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 107 | -- | -- |
| 28 | 1144 | 29 | 1,000 | 361 | 7.5 | 14.9 | -- | 10.6 | 108 | -- | -- |

Table 8. Water-quality data for station 402619080362201, Ohio River at river mile 61.0, main channel, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|---|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1456 | 3.3 | 400 | 404 | 7.6 | 20.4 | -- | 9.7 | 109 | -- | -- |
| 26 | 1457 | 7.9 | 400 | 409 | 7.6 | 20.4 | -- | 9.9 | 110 | -- | -- |
| 26 | 1457 | 15 | 400 | 406 | 7.6 | 20.3 | -- | 9.7 | 109 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1622 | 1.0 | 400 | 474 | 7.7 | 20.9 | -- | 9.4 | 108 | -- | -- |
| 08 | 1623 | 4.3 | 400 | 472 | 7.7 | 20.9 | -- | 9.4 | 108 | -- | -- |
| 08 | 1624 | 7.6 | 400 | 474 | 7.7 | 20.9 | -- | 9.4 | 108 | -- | -- |
| 08 | 1623 | 16 | 400 | 471 | 7.7 | 20.9 | -- | 9.4 | 108 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1313 | .1 | 400 | 496 | 7.8 | 31.1 | -- | 7.4 | 102 | -- | -- |
| 14 | 1313 | 2.9 | 400 | 496 | 7.8 | 31.1 | -- | 7.4 | 101 | -- | -- |
| 14 | 1314 | 4.4 | 400 | 496 | 7.7 | 31.1 | -- | 7.3 | 101 | -- | -- |
| 14 | 1314 | 8.7 | 400 | 495 | 7.7 | 31.1 | -- | 7.3 | 101 | -- | -- |
| 27 | 1642 | .3 | 400 | 524 | 8.6 | 31.3 | -- | 9.8 | 136 | -- | -- |
| 27 | 1643 | 3.0 | 400 | 526 | 8.6 | 31.1 | -- | 9.0 | 123 | -- | -- |
| 27 | 1644 | 6.8 | 400 | 526 | 8.1 | 30.6 | -- | 7.7 | 105 | -- | -- |
| 27 | 1643 | 13 | 400 | 525 | 7.9 | 30.5 | -- | 7.7 | 105 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1256 | .1 | 400 | 540 | 7.7 | 27.1 | -- | 7.9 | 101 | -- | -- |
| 10 | 1256 | 3.0 | 400 | 540 | 7.7 | 27.1 | -- | 7.9 | 101 | -- | -- |
| 10 | 1258 | 7.0 | 400 | 540 | 7.7 | 27.1 | -- | 7.9 | 101 | -- | -- |
| 10 | 1257 | 14 | 400 | 540 | 7.6 | 27.1 | -- | 7.7 | 98 | -- | -- |
| 24 | 1222 | .1 | 400 | 509 | 7.6 | 28.2 | -- | 7.4 | 96 | -- | -- |
| 24 | 1222 | 2.7 | 400 | 511 | 7.6 | 28.3 | -- | 7.4 | 97 | -- | -- |
| 24 | 1224 | 6.9 | 400 | 511 | 7.6 | 28.3 | -- | 7.4 | 96 | -- | -- |
| 24 | 1223 | 13 | 400 | 511 | 7.6 | 28.3 | -- | 7.3 | 96 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1329 | .1 | 400 | 439 | 7.6 | 24.3 | -- | 8.0 | 98 | -- | -- |
| 21 | 1330 | 3.0 | 400 | 440 | 7.6 | 24.3 | -- | 8.1 | 98 | -- | -- |
| 21 | 1332 | 6.9 | 400 | 440 | 7.6 | 24.3 | -- | 8.1 | 98 | -- | -- |
| 21 | 1331 | 14 | 400 | 439 | 7.6 | 24.3 | -- | 8.1 | 98 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1331 | .3 | 400 | 452 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1332 | 2.9 | 400 | 451 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1333 | 7.8 | 400 | 452 | 7.5 | 17.9 | -- | 10.1 | 107 | -- | -- |
| 05 | 1333 | 15 | 400 | 452 | 7.5 | 1.9 | -- | 10.2 | 74 | -- | -- |
| 28 | 1132 | .3 | 400 | 360 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |
| 28 | 1133 | 3.1 | 400 | 360 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |
| 28 | 1135 | 8.1 | 400 | 360 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |
| 28 | 1134 | 15 | 400 | 359 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |

Table 9. Water-quality data for station 402620080364201, Ohio River at river mile 61.0, back channel, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1502 | 3.3 | 2,000 | 404 | 7.6 | 20.4 | -- | 9.6 | 107 | -- | -- |
| 26 | 1503 | 7.9 | 2,000 | 404 | 7.5 | 20.4 | -- | 9.7 | 109 | -- | -- |
| 26 | 1504 | 14 | 2,000 | 403 | 7.5 | 20.4 | -- | 9.5 | 107 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1615 | 1.0 | 2,000 | 472 | 7.7 | 21.3 | -- | 9.2 | 107 | -- | -- |
| 08 | 1617 | 6.3 | 2,000 | 472 | 7.7 | 21.4 | -- | 9.2 | 107 | -- | -- |
| 08 | 1617 | 9.9 | 2,000 | 474 | 7.7 | 21.4 | -- | 9.3 | 107 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1318 | .1 | 2,000 | 495 | 7.8 | 31.1 | -- | 7.3 | 101 | -- | -- |
| 14 | 1319 | 3.2 | 2,000 | 497 | 7.8 | 31.1 | -- | 7.3 | 101 | -- | -- |
| 14 | 1320 | 6.9 | 2,000 | 496 | 7.7 | 31.0 | -- | 7.2 | 98 | -- | -- |
| 14 | 1320 | 13 | 2,000 | 495 | 7.7 | 31.0 | -- | 7.1 | 98 | -- | -- |
| 27 | 1637 | .3 | 2,000 | 524 | 8.6 | 31.1 | -- | 9.7 | 133 | -- | -- |
| 27 | 1638 | 2.8 | 2,000 | 524 | 8.4 | 30.9 | -- | 8.9 | 122 | -- | -- |
| 27 | 1639 | 8.0 | 2,000 | 525 | 8.3 | 30.7 | -- | 8.4 | 115 | -- | -- |
| 27 | 1638 | 16 | 2,000 | 525 | 8.1 | 30.5 | -- | 8.1 | 111 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1251 | .1 | 2,000 | 540 | 7.6 | 27.1 | -- | 7.9 | 100 | -- | -- |
| 10 | 1251 | 3.0 | 2,000 | 540 | 7.6 | 27.1 | -- | 7.8 | 100 | -- | -- |
| 10 | 1253 | 5.8 | 2,000 | 540 | 7.6 | 27.1 | -- | 7.8 | 99 | -- | -- |
| 10 | 1252 | 12 | 2,000 | 540 | 7.6 | 27.1 | -- | 7.8 | 99 | -- | -- |
| 24 | 1227 | .2 | 2,000 | 500 | 7.7 | 28.3 | -- | 7.5 | 99 | -- | -- |
| 24 | 1227 | 3.2 | 2,000 | 512 | 7.7 | 28.3 | -- | 7.6 | 99 | -- | -- |
| 24 | 1228 | 8.1 | 2,000 | 508 | 7.7 | 28.3 | -- | 7.6 | 99 | -- | -- |
| 24 | 1227 | 16 | 2,000 | 507 | 7.7 | 28.3 | -- | 7.5 | 99 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1337 | .1 | 2,000 | 440 | 7.6 | 24.4 | -- | 8.1 | 99 | -- | -- |
| 21 | 1337 | 3.2 | 2,000 | 439 | 7.6 | 24.3 | -- | 8.1 | 99 | -- | -- |
| 21 | 1339 | 4.0 | 2,000 | 439 | 7.6 | 24.3 | -- | 8.1 | 99 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1337 | .3 | 2,000 | 454 | 7.5 | 18.0 | -- | 9.9 | 105 | -- | -- |
| 05 | 1338 | 2.9 | 2,000 | 453 | 7.5 | 18.0 | -- | 10.1 | 107 | -- | -- |
| 05 | 1339 | 7.3 | 2,000 | 453 | 7.5 | 18.0 | -- | 10.0 | 106 | -- | -- |
| 05 | 1339 | 14 | 2,000 | 458 | 7.5 | 18.0 | -- | 9.8 | 103 | -- | -- |
| 28 | 1125 | .3 | 2,000 | 360 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |
| 28 | 1125 | 3.0 | 2,000 | 360 | 7.5 | 14.8 | -- | 10.6 | 107 | -- | -- |
| 28 | 1127 | 6.8 | 2,000 | 360 | 7.5 | 14.8 | -- | 10.6 | 108 | -- | -- |
| 28 | 1126 | 15 | 2,000 | 360 | 7.5 | 14.8 | -- | 10.5 | 106 | -- | -- |

Table 10. Water-quality data for station 402426080362901, Ohio River at river mile 63.2, main channel, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1432 | 3.3 | 500 | 402 | 7.7 | 20.7 | -- | 9.8 | 111 | -- | -- |
| 26 | 1433 | 14 | 500 | 404 | 7.6 | 20.4 | -- | 9.8 | 110 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1641 | .1 | 500 | 473 | 7.7 | 21.8 | -- | 9.1 | 106 | -- | -- |
| 08 | 1641 | 3.0 | 500 | 474 | 7.7 | 21.7 | -- | 9.1 | 106 | -- | -- |
| 08 | 1643 | 14 | 500 | 470 | 7.7 | 21.7 | -- | 9.1 | 106 | -- | -- |
| 08 | 1642 | 31 | 500 | 472 | 7.7 | 21.7 | -- | 9.2 | 107 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1301 | .1 | 500 | 497 | 7.8 | 31.3 | -- | 7.4 | 102 | -- | -- |
| 14 | 1301 | 3.3 | 500 | 498 | 7.8 | 31.2 | -- | 7.6 | 104 | -- | -- |
| 14 | 1303 | 8.4 | 500 | 497 | 7.7 | 31.0 | -- | 7.2 | 99 | -- | -- |
| 14 | 1302 | 17 | 500 | 496 | 7.7 | 31.1 | -- | 7.2 | 98 | -- | -- |
| 27 | 1742 | .2 | 500 | 518 | 8.9 | 31.1 | -- | 10.8 | 149 | -- | -- |
| 27 | 1743 | 2.9 | 500 | 518 | 8.9 | 31.1 | -- | 11.0 | 152 | -- | -- |
| 27 | 1744 | 13 | 500 | 515 | 8.4 | 30.2 | -- | 8.7 | 118 | -- | -- |
| 27 | 1743 | 25 | 500 | 519 | 7.8 | 29.5 | -- | 7.2 | 97 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1242 | .1 | 500 | 547 | 7.7 | 26.9 | -- | 8.2 | 104 | -- | -- |
| 10 | 1242 | 3.0 | 500 | 547 | 7.7 | 26.9 | -- | 8.1 | 103 | -- | -- |
| 10 | 1244 | 12 | 500 | 545 | 7.7 | 26.9 | -- | 8.1 | 104 | -- | -- |
| 10 | 1243 | 26 | 500 | 547 | 7.6 | 26.8 | -- | 7.5 | 96 | -- | -- |
| 24 | 1208 | .1 | 500 | 509 | 8.1 | 28.3 | -- | 8.3 | 108 | -- | -- |
| 24 | 1208 | 2.8 | 500 | 508 | 8.1 | 28.2 | -- | 8.4 | 109 | -- | -- |
| 24 | 1211 | 13 | 500 | 508 | 7.7 | 28.0 | -- | 7.4 | 97 | -- | -- |
| 24 | 1210 | 26 | 500 | 504 | 7.7 | 28.0 | -- | 7.5 | 98 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1311 | .1 | 500 | 433 | 7.5 | 23.5 | -- | 7.9 | 95 | -- | -- |
| 21 | 1312 | 3.2 | 500 | 434 | 7.5 | 23.5 | -- | 7.9 | 95 | -- | -- |
| 21 | 1313 | 7.6 | 500 | 434 | 7.5 | 23.5 | -- | 7.9 | 94 | -- | -- |
| 21 | 1312 | 15 | 500 | 434 | 7.5 | 23.5 | -- | 7.8 | 94 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1315 | .1 | 500 | 461 | 7.5 | 17.7 | -- | 9.9 | 104 | -- | -- |
| 05 | 1316 | 2.9 | 500 | 461 | 7.5 | 17.7 | -- | 9.9 | 104 | -- | -- |
| 05 | 1318 | 15 | 500 | 463 | 7.5 | 17.6 | -- | 9.8 | 103 | -- | -- |
| 05 | 1317 | 30 | 500 | 455 | 7.5 | 17.6 | -- | 9.8 | 103 | -- | -- |
| 28 | 1110 | .5 | 500 | 356 | 7.5 | 14.7 | -- | 10.6 | 107 | -- | -- |
| 28 | 1110 | 3.0 | 500 | 356 | 7.5 | 14.7 | -- | 10.6 | 107 | -- | -- |
| 28 | 1112 | 11 | 500 | 356 | 7.4 | 14.7 | -- | 10.6 | 106 | -- | -- |
| 28 | 1111 | 22 | 500 | 359 | 7.4 | 14.7 | -- | 10.5 | 106 | -- | -- |

Table 11. Water-quality data for station 402428080364601, Ohio River at river mile 63.2, back channel, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1448 | 3.3 | 1,800 | 412 | 7.7 | 20.9 | -- | 9.5 | 108 | -- | -- |
| 26 | 1449 | 8.9 | 1,800 | 412 | 7.6 | 20.7 | -- | 9.8 | 111 | -- | -- |
| 26 | 1450 | 16 | 1,800 | 414 | 7.6 | 20.7 | -- | 9.8 | 110 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1633 | .1 | 1,800 | 470 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1633 | 3.3 | 1,800 | 469 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1634 | 7.6 | 1,800 | 472 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| 08 | 1634 | 17 | 1,800 | 476 | 7.7 | 21.1 | -- | 9.4 | 108 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1306 | .1 | 1,800 | 494 | 7.9 | 30.6 | -- | 7.8 | 107 | -- | -- |
| 14 | 1306 | 2.9 | 1,800 | 493 | 7.8 | 30.6 | -- | 7.8 | 106 | -- | -- |
| 14 | 1308 | 16 | 1,800 | 493 | 7.7 | 30.4 | -- | 7.0 | 95 | -- | -- |
| 14 | 1307 | 29 | 1,800 | 486 | 7.5 | 29.7 | -- | 5.4 | 73 | -- | -- |
| 27 | 1731 | .2 | 1,800 | 528 | 8.7 | 31.9 | -- | 9.3 | 131 | -- | -- |
| 27 | 1731 | 2.9 | 1,800 | 530 | 8.5 | 31.8 | -- | 9.1 | 127 | -- | -- |
| 27 | 1733 | 7.7 | 1,800 | 525 | 8.1 | 30.8 | -- | 8.0 | 110 | -- | -- |
| 27 | 1732 | 17 | 1,800 | 524 | 7.9 | 30.5 | -- | 7.5 | 103 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1233 | .1 | 1,800 | 551 | 7.8 | 27.8 | -- | 7.8 | 101 | -- | -- |
| 10 | 1235 | 3.0 | 1,800 | 552 | 7.7 | 27.8 | -- | 7.8 | 101 | -- | -- |
| 10 | 1236 | 9.7 | 1,800 | 551 | 7.7 | 27.7 | -- | 7.6 | 98 | -- | -- |
| 10 | 1235 | 19 | 1,800 | 548 | 7.6 | 27.7 | -- | 7.4 | 96 | -- | -- |
| 24 | 1215 | .1 | 1,800 | 520 | 7.9 | 28.9 | -- | 7.7 | 102 | -- | -- |
| 24 | 1216 | 3.0 | 1,800 | 518 | 7.8 | 28.9 | -- | 7.7 | 102 | -- | -- |
| 24 | 1217 | 8.5 | 1,800 | 514 | 7.7 | 28.7 | -- | 7.3 | 95 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1311 | .1 | 1,800 | 433 | 7.5 | 23.5 | -- | 7.9 | 95 | -- | -- |
| 21 | 1312 | 3.2 | 1,800 | 434 | 7.5 | 23.5 | -- | 7.9 | 95 | -- | -- |
| 21 | 1313 | 7.6 | 1,800 | 434 | 7.5 | 23.5 | -- | 7.9 | 94 | -- | -- |
| 21 | 1312 | 15 | 1,800 | 434 | 7.5 | 23.5 | -- | 7.8 | 94 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1321 | .1 | 1,800 | 460 | 7.5 | 18.1 | -- | 8.2 | 87 | -- | -- |
| 05 | 1322 | 3.0 | 1,800 | 462 | 7.5 | 18.1 | -- | 9.9 | 105 | -- | -- |
| 05 | 1324 | 9.1 | 1,800 | 463 | 7.5 | 18.2 | -- | 9.9 | 105 | -- | -- |
| 05 | 1323 | 20 | 1,800 | 463 | 7.5 | 18.2 | -- | 9.8 | 105 | -- | -- |
| 28 | 1116 | 0.3 | 1,800 | 360 | 7.5 | 15.0 | -- | 10.5 | 106 | -- | -- |
| 28 | 1116 | 3.1 | 1,800 | 360 | 7.5 | 15.0 | -- | 10.5 | 106 | -- | -- |
| 28 | 1118 | 8.8 | 1,800 | 359 | 7.5 | 15.0 | -- | 10.5 | 107 | -- | -- |
| 28 | 1117 | 17 | 1,800 | 358 | 7.5 | 14.9 | -- | 10.5 | 107 | -- | -- |

Table 12. Water-quality data for station 402329080375901, Ohio River at river mile 65.0, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1436 | 3.3 | 600 | 403 | 7.6 | 20.7 | -- | 9.7 | 109 | -- | -- |
| 26 | 1435 | 16 | 600 | 402 | 7.6 | 20.6 | -- | 9.7 | 110 | -- | -- |
| 26 | 1436 | 31 | 600 | 401 | 7.6 | 20.7 | -- | 9.7 | 109 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1650 | .3 | 600 | 471 | 7.7 | 21.8 | -- | 8.9 | 104 | -- | -- |
| 08 | 1651 | 3.3 | 600 | 474 | 7.7 | 21.8 | -- | 9.0 | 105 | -- | -- |
| 08 | 1652 | 21 | 600 | 473 | 7.6 | 21.8 | -- | 8.9 | 103 | -- | -- |
| 08 | 1651 | 43 | 600 | 477 | 7.6 | 21.9 | -- | 8.9 | 103 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1255 | .1 | 600 | 500 | 7.7 | 31.1 | -- | 7.2 | 100 | -- | -- |
| 14 | 1255 | 2.9 | 600 | 500 | 7.7 | 31.1 | -- | 7.2 | 99 | -- | -- |
| 14 | 1257 | 19 | 600 | 500 | 7.7 | 31.0 | -- | 7.1 | 97 | -- | -- |
| 14 | 1256 | 38 | 600 | 499 | 7.7 | 30.9 | -- | 6.9 | 95 | -- | -- |
| 27 | 1749 | .3 | 600 | 524 | 8.8 | 31.4 | -- | 10.5 | 145 | -- | -- |
| 27 | 1750 | 2.9 | 600 | 523 | 8.8 | 31.4 | -- | 9.7 | 135 | -- | -- |
| 27 | 1751 | 15 | 600 | 527 | 7.8 | 30.4 | -- | 6.9 | 94 | -- | -- |
| 27 | 1750 | 30 | 600 | 520 | 7.8 | 30.1 | -- | 6.9 | 94 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1226 | .1 | 600 | 555 | 7.7 | 27.6 | -- | 7.6 | 98 | -- | -- |
| 10 | 1226 | 3.0 | 600 | 557 | 7.6 | 27.5 | -- | 7.6 | 97 | -- | -- |
| 10 | 1228 | 16 | 600 | 555 | 7.6 | 27.5 | -- | 7.5 | 97 | -- | -- |
| 10 | 1227 | 31 | 600 | 557 | 7.6 | 27.5 | -- | 7.5 | 96 | -- | -- |
| 24 | 1202 | .1 | 600 | 512 | 7.9 | 28.7 | -- | 7.8 | 102 | -- | -- |
| 24 | 1202 | 2.9 | 600 | 513 | 7.9 | 28.7 | -- | 7.7 | 102 | -- | -- |
| 24 | 1203 | 18 | 600 | 511 | 7.8 | 28.7 | -- | 7.5 | 99 | -- | -- |
| 24 | 1203 | 36 | 600 | 509 | 7.8 | 28.6 | -- | 7.5 | 98 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1258 | .1 | 600 | 436 | 7.6 | 24.0 | -- | 7.9 | 96 | -- | -- |
| 21 | 1259 | 2.9 | 600 | 436 | 7.6 | 24.0 | -- | 7.9 | 96 | -- | -- |
| 21 | 1302 | 19 | 600 | 436 | 7.6 | 23.9 | -- | 7.9 | 96 | -- | -- |
| 21 | 1300 | 38 | 600 | 435 | 7.6 | 23.9 | -- | 7.9 | 96 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1204 | .3 | 600 | 469 | 7.6 | 18.0 | -- | 9.6 | 102 | -- | -- |
| 05 | 1205 | 2.9 | 600 | 463 | 7.6 | 17.9 | -- | 10.0 | 106 | -- | -- |
| 05 | 1207 | 20 | 600 | 464 | 7.5 | 17.6 | -- | 9.8 | 103 | -- | -- |
| 05 | 1206 | 41 | 600 | 465 | 7.5 | 17.6 | -- | 9.9 | 104 | -- | -- |
| 28 | 1055 | .2 | 600 | 356 | 7.5 | 14.7 | -- | 11.1 | 112 | -- | -- |
| 28 | 1055 | 2.0 | 600 | 356 | 7.5 | 14.7 | -- | 11.1 | 112 | -- | -- |
| 28 | 1057 | 21 | 600 | 361 | 7.4 | 14.7 | -- | 11.1 | 112 | -- | -- |
| 28 | 1056 | 42 | 600 | 364 | 7.4 | 14.7 | -- | 11.3 | 114 | -- | -- |

Table 13. Water-quality data for station 402213080362401, Ohio River at river mile 67.1, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1323 | 3.3 | 500 | 401 | 7.6 | 20.6 | -- | 9.5 | 107 | -- | -- |
| 26 | 1323 | 14 | 500 | 403 | 7.5 | 20.4 | -- | 9.5 | 106 | -- | -- |
| 26 | 1324 | 29 | 500 | 403 | 7.5 | 20.4 | -- | 9.4 | 106 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1757 | .3 | 500 | 473 | 7.7 | 21.9 | -- | 8.9 | 104 | -- | -- |
| 08 | 1758 | 3.3 | 500 | 473 | 7.7 | 21.9 | -- | 8.9 | 104 | -- | -- |
| 08 | 1759 | 15 | 500 | 473 | 7.6 | 21.9 | -- | 8.9 | 104 | -- | -- |
| 08 | 1759 | 30 | 500 | 473 | 7.7 | 21.9 | -- | 8.8 | 103 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1226 | .1 | 500 | 470 | 8.2 | 30.8 | -- | 7.5 | 102 | -- | -- |
| 14 | 1227 | 3.4 | 500 | 471 | 8.2 | 30.8 | -- | 7.5 | 103 | -- | -- |
| 14 | 1228 | 15 | 500 | 468 | 8.1 | 30.7 | -- | 7.3 | 99 | -- | -- |
| 14 | 1227 | 28 | 500 | 476 | 8.1 | 30.7 | -- | 7.1 | 97 | -- | -- |
| 27 | 1831 | .3 | 500 | 522 | 8.3 | 30.6 | -- | 8.4 | 116 | -- | -- |
| 27 | 1832 | 3.4 | 500 | 522 | 8.3 | 30.7 | -- | 8.4 | 115 | -- | -- |
| 27 | 1833 | 15 | 500 | 523 | 8.2 | 30.6 | -- | 8.1 | 111 | -- | -- |
| 27 | 1832 | 29 | 500 | 522 | 7.9 | 30.2 | -- | 6.9 | 93 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1126 | .1 | 500 | 558 | 7.6 | 27.4 | -- | 7.3 | 94 | -- | -- |
| 10 | 1126 | 3.0 | 500 | 558 | 7.6 | 27.4 | -- | 7.3 | 94 | -- | -- |
| 10 | 1128 | 14 | 500 | 559 | 7.6 | 27.4 | -- | 7.3 | 94 | -- | -- |
| 10 | 1127 | 28 | 500 | 557 | 7.6 | 27.4 | -- | 7.2 | 93 | -- | -- |
| 24 | 1110 | .1 | 500 | 514 | 7.8 | 28.9 | -- | 7.7 | 102 | -- | -- |
| 24 | 1111 | 3.0 | 500 | 515 | 7.8 | 28.9 | -- | 7.7 | 102 | -- | -- |
| 24 | 1112 | 12 | 500 | 512 | 7.7 | 28.8 | -- | 7.3 | 96 | -- | -- |
| 24 | 1112 | 24 | 500 | 509 | 7.6 | 28.8 | -- | 7.2 | 95 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1201 | .1 | 500 | 431 | 7.6 | 23.9 | -- | 7.9 | 96 | -- | -- |
| 21 | 1201 | 3.0 | 500 | 431 | 7.6 | 23.9 | -- | 7.9 | 96 | -- | -- |
| 21 | 1203 | 14 | 500 | 430 | 7.6 | 23.9 | -- | 7.9 | 96 | -- | -- |
| 21 | 1203 | 26 | 500 | 430 | 7.6 | 23.9 | -- | 7.9 | 95 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1157 | .2 | 500 | 463 | 7.6 | 17.8 | -- | 9.8 | 103 | -- | -- |
| 05 | 1157 | 2.8 | 500 | 462 | 7.6 | 17.7 | -- | 9.9 | 105 | -- | -- |
| 05 | 1159 | 13 | 500 | 461 | 7.6 | 17.7 | -- | 9.8 | 103 | -- | -- |
| 05 | 1158 | 27 | 500 | 463 | 7.6 | 17.7 | -- | 9.9 | 105 | -- | -- |
| 29 | 950 | .4 | 500 | 381 | 7.5 | 14.7 | -- | 10.4 | 105 | -- | -- |
| 29 | 950 | 3.0 | 500 | 379 | 7.5 | 14.7 | -- | 10.4 | 106 | -- | -- |
| 29 | 951 | 14 | 500 | 383 | 7.4 | 14.8 | -- | 10.5 | 106 | -- | -- |
| 29 | 952 | 28 | 500 | 381 | 7.4 | 14.8 | -- | 10.5 | 106 | -- | -- |

Table 14. Water-quality data for station 402051080363901, Ohio River at river mile 68.7, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1316 | 3.3 | 500 | 401 | 7.5 | 20.4 | -- | 9.3 | 104 | -- | -- |
| 26 | 1314 | 13 | 500 | 396 | 7.5 | 20.3 | -- | 9.4 | 105 | -- | -- |
| 26 | 1315 | 23 | 500 | 409 | 7.5 | 20.4 | -- | 9.4 | 106 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1805 | 0.0 | 500 | 474 | 7.7 | 21.8 | -- | 8.6 | 100 | -- | -- |
| 08 | 1806 | 3.3 | 500 | 474 | 7.6 | 21.8 | -- | 8.6 | 101 | -- | -- |
| 08 | 1807 | 12 | 500 | 475 | 7.6 | 21.8 | -- | 8.6 | 100 | -- | -- |
| 08 | 1807 | 25 | 500 | 478 | 7.6 | 21.7 | -- | 8.5 | 100 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1220 | .2 | 500 | 468 | 8.1 | 30.5 | -- | 7.2 | 99 | -- | -- |
| 14 | 1221 | 3.2 | 500 | 469 | 8.1 | 30.5 | -- | 7.1 | 97 | -- | -- |
| 14 | 1222 | 11 | 500 | 470 | 8.1 | 30.5 | -- | 7.2 | 98 | -- | -- |
| 14 | 1222 | 22 | 500 | 467 | 8.1 | 30.5 | -- | 7.1 | 96 | -- | -- |
| 27 | 1838 | .3 | 500 | 520 | 8.9 | 31.1 | -- | 10.8 | 148 | -- | -- |
| 27 | 1838 | 3.1 | 500 | 521 | 8.6 | 30.9 | -- | 9.3 | 128 | -- | -- |
| 27 | 1841 | 11 | 500 | 524 | 7.7 | 30.0 | -- | 6.7 | 91 | -- | -- |
| 27 | 1839 | 23 | 500 | 524 | 7.7 | 30.0 | -- | 6.6 | 90 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1120 | .1 | 500 | 561 | 7.6 | 27.5 | -- | 7.4 | 95 | -- | -- |
| 10 | 1119 | 3.0 | 500 | 561 | 7.6 | 27.5 | -- | 7.4 | 95 | -- | -- |
| 10 | 1118 | 11 | 500 | 561 | 7.6 | 27.5 | -- | 7.4 | 95 | -- | -- |
| 10 | 1116 | 23 | 500 | 563 | 7.6 | 27.5 | -- | 7.3 | 94 | -- | -- |
| 24 | 1104 | .3 | 500 | 511 | 7.7 | 28.8 | -- | 7.7 | 101 | -- | -- |
| 24 | 1105 | 3.3 | 500 | 515 | 7.7 | 28.8 | -- | 7.7 | 101 | -- | -- |
| 24 | 1106 | 12 | 500 | 508 | 7.6 | 28.8 | -- | 7.3 | 97 | -- | -- |
| 24 | 1106 | 24 | 500 | 520 | 7.6 | 28.8 | -- | 7.3 | 97 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1153 | .1 | 500 | 430 | 7.6 | 24.1 | -- | 7.8 | 94 | -- | -- |
| 21 | 1154 | 3.1 | 500 | 430 | 7.6 | 24.1 | -- | 7.8 | 94 | -- | -- |
| 21 | 1155 | 12 | 500 | 429 | 7.6 | 24.1 | -- | 7.8 | 94 | -- | -- |
| 21 | 1155 | 23 | 500 | 430 | 7.6 | 24.1 | -- | 7.8 | 94 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1151 | .2 | 500 | 462 | 7.6 | 17.6 | -- | 9.9 | 104 | -- | -- |
| 05 | 1151 | 2.9 | 500 | 459 | 7.6 | 17.6 | -- | 9.9 | 104 | -- | -- |
| 05 | 1152 | 10 | 500 | 460 | 7.6 | 17.6 | -- | 9.8 | 103 | -- | -- |
| 05 | 1152 | 21 | 500 | 467 | 7.6 | 17.6 | -- | 10.0 | 105 | -- | -- |
| 29 | 0959 | .2 | 500 | 376 | 7.5 | 14.7 | -- | 10.5 | 106 | -- | -- |
| 29 | 0959 | 3.5 | 500 | 376 | 7.5 | 14.7 | -- | 10.5 | 106 | -- | -- |
| 29 | 1001 | 11 | 500 | 373 | 7.5 | 14.7 | -- | 10.5 | 105 | -- | -- |
| 29 | 1000 | 23 | 500 | 371 | 7.5 | 14.7 | -- | 10.4 | 105 | -- | -- |

Table 15. Water-quality data for station 401838080360701, Ohio River at river mile 71.4, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1249 | 3.3 | 300 | 403 | 7.6 | 20.4 | -- | 9.6 | 107 | -- | -- |
| 26 | 1248 | 6.6 | 300 | 404 | 7.6 | 20.3 | -- | 9.5 | 106 | -- | -- |
| 26 | 1247 | 9.9 | 300 | 404 | 7.6 | 20.3 | -- | 9.4 | 106 | -- | -- |
| 26 | 1246 | 16 | 300 | 404 | 7.5 | 20.3 | -- | 9.4 | 105 | -- | -- |
| 26 | 1245 | 23 | 300 | 403 | 7.5 | 20.2 | -- | 9.4 | 105 | -- | -- |
| 26 | 1245 | 28 | 300 | 404 | 7.5 | 20.2 | -- | 9.4 | 105 | -- | -- |
| 26 | 1254 | 3.3 | 600 | 402 | 7.5 | 20.2 | 1.5 | 9.3 | 104 | -- | -- |
| 26 | 1254 | 6.6 | 600 | 402 | 7.5 | 20.1 | -- | 9.3 | 103 | -- | -- |
| 26 | 1255 | 9.9 | 600 | 403 | 7.5 | 20.1 | -- | 9.2 | 103 | -- | -- |
| 26 | 1256 | 16 | 600 | 403 | 7.5 | 20.1 | -- | 9.3 | 103 | -- | -- |
| 26 | 1257 | 23 | 600 | 403 | 7.5 | 20.1 | -- | 9.3 | 103 | -- | -- |
| 26 | 1258 | 30 | 600 | 403 | 7.5 | 20.1 | -- | 9.2 | 103 | 8.1 | 0.5 |
| 26 | 1306 | 3.3 | 900 | 403 | 7.6 | 20.5 | -- | 9.5 | 107 | -- | -- |
| 26 | 1305 | 6.6 | 900 | 401 | 7.5 | 20.2 | -- | 9.4 | 105 | -- | -- |
| 26 | 1305 | 9.9 | 900 | 400 | 7.5 | 20.2 | 7.0 | 9.4 | 105 | -- | -- |
| 26 | 1304 | 16 | 900 | 400 | 7.5 | 20.1 | -- | 9.3 | 104 | -- | -- |
| 26 | 1303 | 23 | 900 | 400 | 7.5 | 20.1 | -- | 9.3 | 104 | -- | -- |
| 26 | 1304 | 28 | 900 | 400 | 7.5 | 20.1 | -- | 9.2 | 103 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1817 | 1.0 | 300 | 480 | 7.7 | 21.5 | -- | 8.3 | 96 | -- | -- |
| 08 | 1818 | 3.3 | 300 | 481 | 7.6 | 21.5 | -- | 8.2 | 96 | -- | -- |
| 08 | 1819 | 6.6 | 300 | 482 | 7.6 | 21.5 | -- | 8.2 | 96 | -- | -- |
| 08 | 1820 | 9.9 | 300 | 482 | 7.6 | 21.5 | -- | 8.3 | 96 | -- | -- |
| 08 | 1820 | 16 | 300 | 483 | 7.6 | 21.5 | -- | 8.2 | 96 | -- | -- |
| 08 | 1821 | 23 | 300 | 483 | 7.6 | 21.5 | -- | 8.2 | 96 | -- | -- |
| 08 | 1831 | 0.1 | 600 | 472 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1830 | 3.6 | 600 | 480 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1829 | 6.6 | 600 | 474 | 7.6 | 21.6 | -- | 8.4 | 97 | -- | -- |
| 08 | 1829 | 10 | 600 | 478 | 7.6 | 21.6 | -- | 8.4 | 97 | -- | -- |
| 08 | 1828 | 16 | 600 | 468 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1827 | 23 | 600 | 468 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1826 | 31 | 600 | 473 | 7.6 | 21.5 | -- | 8.3 | 97 | -- | -- |
| 08 | 1837 | .1 | 900 | 479 | 7.7 | 21.9 | -- | 8.4 | 98 | -- | -- |
| 08 | 1838 | 3.3 | 900 | 478 | 7.6 | 21.7 | -- | 8.3 | 97 | -- | -- |
| 08 | 1838 | 6.6 | 900 | 477 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1839 | 9.9 | 900 | 475 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1839 | 16 | 900 | 477 | 7.6 | 21.6 | -- | 8.3 | 97 | -- | -- |
| 08 | 1840 | 23 | 900 | 472 | 7.6 | 21.5 | -- | 8.3 | 97 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1148 | .2 | 300 | 466 | 8.2 | 30.7 | -- | 7.8 | 106 | -- | -- |
| 14 | 1148 | 2.9 | 300 | 465 | 8.2 | 30.7 | -- | 7.8 | 106 | -- | -- |
| 14 | 1147 | 5.0 | 300 | 465 | 8.2 | 30.7 | -- | 7.6 | 104 | -- | -- |
| 14 | 1147 | 10 | 300 | 468 | 8.1 | 30.6 | -- | 7.4 | 101 | -- | -- |
| 14 | 1146 | 15 | 300 | 472 | 8.0 | 30.4 | -- | 7.1 | 97 | -- | -- |
| 14 | 1145 | 20 | 300 | 472 | 8.0 | 30.4 | -- | 7.0 | 95 | -- | -- |
| 14 | 1144 | 25 | 300 | 487 | 8.0 | 30.2 | -- | 6.8 | 92 | -- | -- |
| 14 | 1144 | 28 | 300 | 553 | 8.0 | 29.6 | -- | 6.3 | 84 | -- | -- |

Table 15. Water-quality data for station 401838080360701, Ohio River at river mile 71.4, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|--------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| July | | | | | | | | | | | |
| 14 | 1158 | 0.1 | 600 | 468 | 8.1 | 30.8 | -- | 7.3 | 99 | -- | -- |
| 14 | 1158 | 3.1 | 600 | 467 | 8.1 | 30.8 | -- | 7.3 | 100 | -- | -- |
| 14 | 1158 | 4.9 | 600 | 468 | 8.1 | 30.7 | -- | 7.3 | 100 | -- | -- |
| 14 | 1153 | 10 | 600 | 466 | 8.1 | 30.7 | -- | 7.4 | 100 | -- | -- |
| 14 | 1153 | 15 | 600 | 465 | 8.1 | 30.6 | -- | 7.3 | 100 | 9.6 | 0.9 |
| 14 | 1152 | 20 | 600 | 468 | 8.1 | 30.4 | -- | 7.1 | 97 | -- | -- |
| 14 | 1151 | 25 | 600 | 496 | 8.1 | 30.1 | -- | 6.8 | 92 | -- | -- |
| 14 | 1151 | 30 | 600 | 631 | 8.1 | 28.5 | -- | 6.1 | 80 | -- | -- |
| 14 | 1212 | .1 | 900 | 469 | 8.1 | 31.1 | -- | 7.1 | 97 | -- | -- |
| 14 | 1211 | 3.1 | 900 | 468 | 8.1 | 31.0 | -- | 7.1 | 97 | -- | -- |
| 14 | 1211 | 4.9 | 900 | 469 | 8.1 | 30.9 | -- | 7.1 | 98 | -- | -- |
| 14 | 1210 | 10 | 900 | 468 | 8.1 | 30.6 | -- | 7.2 | 98 | -- | -- |
| 14 | 1209 | 15 | 900 | 467 | 8.0 | 30.4 | -- | 6.9 | 94 | -- | -- |
| 14 | 1208 | 20 | 900 | 470 | 8.1 | 30.3 | -- | 7.0 | 94 | -- | -- |
| 14 | 1207 | 22 | 900 | 469 | 8.1 | 30.3 | -- | 6.9 | 94 | -- | -- |
| 27 | 1909 | .4 | 300 | 517 | 9.0 | 31.2 | -- | 11.1 | 153 | -- | -- |
| 27 | 1910 | 3.0 | 300 | 517 | 8.9 | 31.2 | -- | 10.8 | 149 | -- | -- |
| 27 | 1910 | 5.1 | 300 | 520 | 8.8 | 31.0 | -- | 10.1 | 139 | -- | -- |
| 27 | 1911 | 9.7 | 300 | 521 | 8.3 | 30.4 | -- | 8.4 | 115 | -- | -- |
| 27 | 1911 | 15 | 300 | 523 | 8.1 | 30.2 | -- | 7.7 | 104 | -- | -- |
| 27 | 1912 | 20 | 300 | 523 | 8.1 | 30.1 | -- | 7.6 | 103 | -- | -- |
| 27 | 1912 | 23 | 300 | 523 | 8.0 | 30.1 | -- | 7.3 | 98 | -- | -- |
| 27 | 1848 | .2 | 600 | 521 | 8.9 | 30.9 | -- | 10.2 | 140 | -- | -- |
| 27 | 1848 | 3.1 | 600 | 517 | 8.8 | 30.9 | -- | 10.4 | 143 | -- | -- |
| 27 | 1849 | 5.1 | 600 | 517 | 8.7 | 30.8 | -- | 10.0 | 138 | -- | -- |
| 27 | 1850 | 9.9 | 600 | 519 | 8.7 | 30.7 | -- | 9.3 | 128 | 19.0 | 2.8 |
| 27 | 1850 | 15 | 600 | 521 | 8.5 | 30.5 | -- | 8.9 | 122 | -- | -- |
| 27 | 1851 | 20 | 600 | 523 | 8.0 | 30.0 | -- | 7.3 | 99 | -- | -- |
| 27 | 1852 | 25 | 600 | 520 | 7.8 | 29.8 | -- | 6.8 | 91 | -- | -- |
| 27 | 1852 | 29 | 600 | 529 | 7.8 | 29.7 | -- | 6.5 | 88 | -- | -- |
| 27 | 1858 | .3 | 900 | 523 | 8.5 | 31.1 | -- | 8.5 | 117 | -- | -- |
| 27 | 1859 | 3.0 | 900 | 522 | 8.6 | 31.0 | -- | 9.1 | 125 | -- | -- |
| 27 | 1900 | 5.0 | 900 | 521 | 8.6 | 31.0 | -- | 9.3 | 127 | -- | -- |
| 27 | 1902 | 9.7 | 900 | 517 | 8.8 | 30.8 | -- | 10.2 | 140 | -- | -- |
| 27 | 1904 | 15 | 900 | 522 | 8.8 | 30.8 | -- | 10.1 | 138 | -- | -- |
| 27 | 1905 | 20 | 900 | 518 | 8.4 | 30.4 | -- | 8.5 | 115 | -- | -- |
| 27 | 1906 | 25 | 900 | 519 | 7.8 | 29.9 | -- | 6.7 | 91 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1108 | .1 | 300 | 563 | 7.7 | 27.6 | -- | 7.5 | 97 | -- | -- |
| 10 | 1107 | 3.0 | 300 | 563 | 7.7 | 27.6 | -- | 7.5 | 97 | -- | -- |
| 10 | 1107 | 5.0 | 300 | 564 | 7.6 | 27.6 | -- | 7.5 | 96 | -- | -- |
| 10 | 1106 | 10 | 300 | 563 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1105 | 15 | 300 | 564 | 7.6 | 27.5 | -- | 7.1 | 92 | -- | -- |
| 10 | 1104 | 20 | 300 | 564 | 7.6 | 27.5 | -- | 7.1 | 91 | -- | -- |
| 10 | 1103 | 25 | 300 | 561 | 7.6 | 27.5 | -- | 7.1 | 91 | -- | -- |
| 10 | 1103 | 30 | 300 | 562 | 7.6 | 27.5 | -- | 7.0 | 90 | -- | -- |

Table 15. Water-quality data for station 401838080360701, Ohio River at river mile 71.4, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (μS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (μg/L) | Chlorophyll <i>b</i> (μg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| August | | | | | | | | | | | |
| 10 | 1059 | 0.1 | 600 | 564 | 7.6 | 27.8 | 4.0 | 7.4 | 95 | -- | -- |
| 10 | 1058 | 3.0 | 600 | 565 | 7.6 | 27.8 | -- | 7.4 | 96 | -- | -- |
| 10 | 1058 | 5.0 | 600 | 565 | 7.6 | 27.7 | -- | 7.4 | 96 | -- | -- |
| 10 | 1057 | 10 | 600 | 565 | 7.6 | 27.7 | -- | 7.4 | 96 | -- | -- |
| 10 | 1056 | 15 | 600 | 561 | 7.6 | 27.5 | -- | 7.3 | 94 | -- | -- |
| 10 | 1054 | 20 | 600 | 563 | 7.6 | 27.5 | -- | 7.3 | 94 | -- | -- |
| 10 | 1053 | 25 | 600 | 561 | 7.6 | 27.5 | -- | 7.1 | 91 | -- | -- |
| 10 | 1051 | 30 | 600 | 559 | 7.5 | 27.5 | -- | 7.0 | 90 | -- | -- |
| 10 | 1049 | .1 | 900 | 562 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1049 | 3.0 | 900 | 564 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1048 | 5.0 | 900 | 563 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1047 | 10 | 900 | 563 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1046 | 15 | 900 | 564 | 7.6 | 27.5 | -- | 7.2 | 92 | -- | -- |
| 10 | 1045 | 20 | 900 | 563 | 7.6 | 27.5 | -- | 7.2 | 92 | -- | -- |
| 10 | 1044 | 25 | 900 | 559 | 7.6 | 27.5 | -- | 7.1 | 92 | -- | -- |
| 10 | 1043 | 26 | 900 | 559 | 7.6 | 27.4 | -- | 7.1 | 91 | -- | -- |
| 24 | 1053 | .2 | 300 | 514 | 7.5 | 29.0 | -- | 7.1 | 94 | -- | -- |
| 24 | 1053 | 3.0 | 300 | 514 | 7.5 | 29.1 | -- | 7.1 | 94 | -- | -- |
| 24 | 1054 | 3.2 | 300 | 514 | 7.5 | 29.1 | -- | 7.1 | 94 | -- | -- |
| 24 | 1055 | 10 | 300 | 514 | 7.5 | 28.9 | -- | 7.1 | 94 | -- | -- |
| 24 | 1056 | 15 | 300 | 514 | 7.5 | 28.8 | -- | 6.8 | 89 | -- | -- |
| 24 | 1057 | 20 | 300 | 512 | 7.5 | 28.8 | -- | 6.8 | 89 | -- | -- |
| 24 | 1058 | 25 | 300 | 509 | 7.5 | 28.8 | -- | 6.8 | 90 | -- | -- |
| 24 | 1058 | 28 | 300 | 505 | 7.5 | 28.8 | -- | 6.8 | 89 | -- | -- |
| 24 | 1049 | 2.8 | 600 | 514 | 7.5 | 29.4 | 3.0 | 6.9 | 92 | 7.6 | 0.8 |
| 24 | 1049 | 5.2 | 600 | 514 | 7.5 | 29.1 | -- | 7.0 | 92 | -- | -- |
| 24 | 1048 | 9.9 | 600 | 513 | 7.5 | 28.9 | -- | 6.9 | 91 | -- | -- |
| 24 | 1047 | 15 | 600 | 514 | 7.5 | 28.8 | -- | 6.8 | 90 | -- | -- |
| 24 | 1047 | 20 | 600 | 514 | 7.5 | 28.8 | -- | 6.7 | 89 | -- | -- |
| 24 | 1046 | 25 | 600 | 514 | 7.5 | 28.8 | -- | 6.7 | 88 | -- | -- |
| 24 | 1043 | 29 | 600 | 514 | 7.5 | 28.8 | -- | 6.7 | 89 | -- | -- |
| 24 | 1045 | 30 | 600 | 514 | 7.5 | 28.8 | -- | 6.7 | 89 | -- | -- |
| 24 | 1044 | 31 | 600 | 514 | 7.5 | 28.8 | -- | 6.7 | 89 | -- | -- |
| 24 | 1039 | 0.2 | 900 | 513 | 7.5 | 29.1 | -- | 6.9 | 92 | -- | -- |
| 24 | 1038 | 4.7 | 900 | 514 | 7.5 | 28.9 | -- | 6.8 | 89 | -- | -- |
| 24 | 1037 | 10 | 900 | 514 | 7.4 | 28.8 | -- | 6.7 | 88 | -- | -- |
| 24 | 1037 | 15 | 900 | 513 | 7.4 | 28.8 | -- | 6.6 | 87 | -- | -- |
| 24 | 1036 | 20 | 900 | 513 | 7.4 | 28.8 | -- | 6.6 | 87 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1141 | .1 | 300 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1142 | 3.2 | 300 | 429 | 7.6 | 24.5 | -- | 7.7 | 95 | -- | -- |
| 21 | 1142 | 4.9 | 300 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1143 | 10 | 300 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1144 | 15 | 300 | 430 | 7.6 | 24.5 | -- | 7.7 | 94 | -- | -- |
| 21 | 1145 | 20 | 300 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1146 | 24 | 300 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |

Table 15. Water-quality data for station 401838080360701, Ohio River at river mile 71.4, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| September | | | | | | | | | | | |
| 21 | 1136 | 0.1 | 600 | 430 | 7.6 | 24.4 | 3.2 | 7.7 | 93 | -- | -- |
| 21 | 1135 | 3.1 | 600 | 428 | 7.5 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1134 | 5.0 | 600 | 431 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1133 | 10 | 600 | 429 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1133 | 15 | 600 | 431 | 7.6 | 24.4 | -- | 7.6 | 93 | 5.8 | 0.4 |
| 21 | 1131 | 20 | 600 | 431 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1131 | 25 | 600 | 432 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1130 | 30 | 600 | 429 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1128 | 31 | 600 | 428 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1118 | .1 | 900 | 430 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1119 | 3.2 | 900 | 429 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1120 | 5.1 | 900 | 431 | 7.6 | 24.4 | -- | 7.6 | 93 | -- | -- |
| 21 | 1121 | 9.7 | 900 | 428 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1122 | 15 | 900 | 430 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1123 | 20 | 900 | 432 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 21 | 1117 | 25 | 900 | 431 | 7.6 | 24.4 | -- | 7.7 | 94 | -- | -- |
| 05 | 1136 | .4 | 300 | 464 | 7.6 | 17.8 | -- | 9.8 | 104 | -- | -- |
| 05 | 1136 | 2.9 | 300 | 464 | 7.6 | 17.7 | -- | 9.7 | 103 | -- | -- |
| 05 | 1137 | 5.2 | 300 | 465 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1138 | 9.8 | 300 | 465 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1139 | 15 | 300 | 465 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1140 | 20 | 300 | 465 | 7.5 | 17.6 | -- | 9.7 | 103 | -- | -- |
| 05 | 1141 | 25 | 300 | 463 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1142 | 27 | 300 | 467 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1133 | .2 | 600 | 463 | 7.6 | 17.9 | 5.0 | 9.8 | 104 | -- | -- |
| 05 | 1132 | 2.8 | 600 | 463 | 7.6 | 17.8 | -- | 9.8 | 104 | -- | -- |
| 05 | 1131 | 5.1 | 600 | 463 | 7.6 | 17.6 | -- | 9.7 | 103 | -- | -- |
| 05 | 1130 | 9.8 | 600 | 463 | 7.6 | 17.6 | -- | 9.7 | 103 | -- | -- |
| 05 | 1129 | 15 | 600 | 463 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1128 | 20 | 600 | 463 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1127 | 25 | 600 | 463 | 7.5 | 17.5 | -- | 9.8 | 103 | -- | -- |
| 05 | 1128 | 30 | 600 | 463 | 7.5 | 17.5 | -- | 9.7 | 102 | 3.0 | 0.2 |
| 05 | 1125 | 31 | 600 | 463 | 7.5 | 17.5 | -- | 9.3 | 97 | -- | -- |
| 05 | 1118 | .3 | 900 | 472 | 7.6 | 18.2 | -- | 9.6 | 103 | -- | -- |
| 05 | 1117 | 3.0 | 900 | 468 | 7.6 | 17.8 | -- | 9.7 | 102 | -- | -- |
| 05 | 1118 | 5.1 | 900 | 465 | 7.5 | 17.7 | -- | 9.7 | 102 | -- | -- |
| 05 | 1119 | 10 | 900 | 465 | 7.6 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1120 | 15 | 900 | 463 | 7.5 | 17.5 | -- | 9.7 | 103 | -- | -- |
| 05 | 1121 | 20 | 900 | 462 | 7.5 | 17.5 | -- | 9.7 | 103 | -- | -- |
| 05 | 1121 | 22 | 900 | 463 | 7.5 | 17.5 | -- | 9.7 | 103 | -- | -- |
| 29 | 1025 | .3 | 300 | 372 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |
| 29 | 1025 | 3.2 | 300 | 371 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1026 | 5.3 | 300 | 371 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1026 | 11 | 300 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1027 | 15 | 300 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1027 | 20 | 300 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1028 | 25 | 300 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1029 | 30 | 300 | 369 | 7.4 | 14.6 | -- | 10.3 | 104 | -- | -- |

Table 15. Water-quality data for station 401838080360701, Ohio River at river mile 71.4, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|---------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| October | | | | | | | | | | | |
| 29 | 1018 | 0.4 | 600 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1018 | 2.8 | 600 | 369 | 7.5 | 14.6 | -- | 10.4 | 105 | -- | -- |
| 29 | 1019 | 4.7 | 600 | 370 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1019 | 10 | 600 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1020 | 15 | 600 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1021 | 20 | 600 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1023 | 22 | 600 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1011 | .2 | 900 | 369 | 7.5 | 14.7 | -- | 10.3 | 104 | -- | -- |
| 29 | 1011 | 3.1 | 900 | 369 | 7.5 | 14.7 | -- | 10.3 | 104 | -- | -- |
| 29 | 1012 | 5.0 | 900 | 369 | 7.5 | 14.7 | -- | 10.3 | 104 | -- | -- |
| 29 | 1013 | 10 | 900 | 369 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |
| 29 | 1014 | 15 | 900 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1015 | 20 | 900 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |
| 29 | 1016 | 23 | 900 | 369 | 7.5 | 14.6 | -- | 10.4 | 104 | -- | -- |

Table 16. Water-quality data for station 401728080365101, Ohio River at river mile 72.9, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1239 | 3.3 | 600 | 407 | 7.6 | 20.2 | -- | 9.3 | 104 | -- | -- |
| 26 | 1240 | 14 | 600 | 411 | 7.5 | 20.0 | -- | 9.2 | 102 | -- | -- |
| 26 | 1238 | 30 | 600 | 415 | 7.5 | 19.8 | -- | 9.0 | 100 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1846 | .3 | 600 | 485 | 7.7 | 21.4 | -- | 8.3 | 96 | -- | -- |
| 08 | 1846 | 3.3 | 600 | 485 | 7.7 | 21.4 | -- | 8.2 | 96 | -- | -- |
| 08 | 1847 | 15 | 600 | 485 | 7.6 | 21.4 | -- | 8.3 | 96 | -- | -- |
| 08 | 1847 | 31 | 600 | 485 | 7.7 | 21.4 | -- | 8.3 | 96 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1137 | .1 | 600 | 472 | 8.1 | 30.4 | -- | 7.2 | 98 | -- | -- |
| 14 | 1138 | 2.9 | 600 | 471 | 8.1 | 30.4 | -- | 7.2 | 97 | -- | -- |
| 14 | 1140 | 10 | 600 | 473 | 8.0 | 30.4 | -- | 7.2 | 97 | -- | -- |
| 14 | 1138 | 22 | 600 | 487 | 7.9 | 30.3 | -- | 6.6 | 89 | -- | -- |
| 27 | 1918 | .3 | 600 | 523 | 8.5 | 30.2 | -- | 8.5 | 115 | -- | -- |
| 27 | 1919 | 3.0 | 600 | 523 | 8.4 | 30.2 | -- | 8.5 | 116 | -- | -- |
| 27 | 1920 | 16 | 600 | 528 | 7.9 | 29.9 | -- | 7.1 | 95 | -- | -- |
| 27 | 1919 | 31 | 600 | 530 | 7.8 | 29.8 | -- | 6.6 | 90 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1034 | .1 | 600 | 558 | 7.6 | 27.5 | -- | 7.3 | 94 | -- | -- |
| 10 | 1034 | 3.0 | 600 | 558 | 7.6 | 27.5 | -- | 7.3 | 94 | -- | -- |
| 10 | 1036 | 15 | 600 | 556 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 10 | 1035 | 33 | 600 | 556 | 7.6 | 27.5 | -- | 7.2 | 93 | -- | -- |
| 24 | 1029 | 2.9 | 600 | 512 | 7.5 | 28.7 | -- | 7.1 | 93 | -- | -- |
| 24 | 1031 | 11 | 600 | 512 | 7.5 | 28.7 | -- | 6.8 | 90 | -- | -- |
| 24 | 1030 | 23 | 600 | 512 | 7.5 | 28.7 | -- | 6.8 | 89 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1109 | .1 | 600 | 435 | 7.5 | 24.4 | -- | 7.5 | 91 | -- | -- |
| 21 | 1110 | 3.0 | 600 | 437 | 7.5 | 24.3 | -- | 7.5 | 91 | -- | -- |
| 21 | 1111 | 18 | 600 | 437 | 7.5 | 24.4 | -- | 7.4 | 91 | -- | -- |
| 21 | 1110 | 35 | 600 | 435 | 7.5 | 24.3 | -- | 7.4 | 91 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1108 | .5 | 600 | 466 | 7.5 | 17.6 | -- | 9.7 | 102 | -- | -- |
| 05 | 1109 | 3.0 | 600 | 466 | 7.5 | 17.6 | -- | 9.6 | 102 | -- | -- |
| 05 | 1110 | 16 | 600 | 467 | 7.5 | 17.6 | -- | 9.6 | 102 | -- | -- |
| 05 | 1109 | 31 | 600 | 467 | 7.5 | 17.6 | -- | 9.2 | 97 | -- | -- |
| 29 | 1037 | .1 | 600 | 366 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |
| 29 | 1037 | 3.2 | 600 | 366 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |
| 29 | 1039 | 14 | 600 | 366 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |
| 29 | 1038 | 26 | 600 | 366 | 7.5 | 14.6 | -- | 10.3 | 104 | -- | -- |

Table 17. Water-quality data for station 401542080371801, Ohio River at river mile 75.0, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1233 | 3.3 | 600 | 410 | 7.5 | 19.9 | -- | 9.0 | 100 | -- | -- |
| 26 | 1234 | 14 | 600 | 413 | 7.5 | 19.7 | -- | 9.0 | 100 | -- | -- |
| 26 | 1234 | 28 | 600 | 417 | 7.5 | 19.6 | -- | 9.0 | 99 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1857 | .1 | 600 | 482 | 7.8 | 21.2 | -- | 8.3 | 96 | -- | -- |
| 08 | 1858 | 3.6 | 600 | 490 | 7.7 | 21.2 | -- | 8.3 | 95 | -- | -- |
| 08 | 1859 | 14 | 600 | 483 | 7.7 | 21.1 | -- | 8.2 | 95 | -- | -- |
| 08 | 1858 | 28 | 600 | 468 | 7.7 | 21.0 | -- | 8.2 | 94 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1129 | .1 | 600 | 470 | 8.0 | 30.4 | -- | 7.3 | 99 | -- | -- |
| 14 | 1130 | 3.3 | 600 | 470 | 8.0 | 30.4 | -- | 7.2 | 98 | -- | -- |
| 14 | 1132 | 14 | 600 | 469 | 7.9 | 30.3 | -- | 6.8 | 93 | -- | -- |
| 14 | 1131 | 28 | 600 | 475 | 7.9 | 29.9 | -- | 5.8 | 78 | -- | -- |
| 27 | 1928 | .3 | 600 | 529 | 8.6 | 31.5 | -- | 8.7 | 121 | -- | -- |
| 27 | 1929 | 2.9 | 600 | 529 | 8.6 | 31.5 | -- | 8.7 | 121 | -- | -- |
| 27 | 1931 | 14 | 600 | 528 | 8.4 | 30.4 | -- | 8.4 | 114 | -- | -- |
| 27 | 1930 | 27 | 600 | 531 | 7.8 | 29.8 | -- | 6.8 | 91 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1026 | .1 | 600 | 552 | 7.6 | 27.3 | -- | 7.2 | 92 | -- | -- |
| 10 | 1026 | 3.0 | 600 | 553 | 7.6 | 27.3 | -- | 7.2 | 92 | -- | -- |
| 10 | 1028 | 14 | 600 | 554 | 7.6 | 27.3 | -- | 7.1 | 90 | -- | -- |
| 10 | 1027 | 27 | 600 | 550 | 7.6 | 27.2 | -- | 7.0 | 89 | -- | -- |
| 24 | 1029 | .1 | 600 | 512 | 7.5 | 28.7 | -- | 7.1 | 93 | -- | -- |
| 24 | 1020 | 3.0 | 600 | 507 | 7.5 | 24.7 | -- | 7.2 | 89 | -- | -- |
| 24 | 1021 | 14 | 600 | 507 | 7.5 | 28.4 | -- | 7.0 | 91 | -- | -- |
| 24 | 1021 | 27 | 600 | 506 | 7.5 | 28.4 | -- | 6.9 | 91 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1058 | .1 | 600 | 432 | 7.5 | 24.2 | -- | 7.5 | 91 | -- | -- |
| 21 | 1059 | 3.2 | 600 | 432 | 7.5 | 24.2 | -- | 7.5 | 91 | -- | -- |
| 21 | 1100 | 15 | 600 | 430 | 7.5 | 24.2 | -- | 7.5 | 91 | -- | -- |
| 21 | 1100 | 29 | 600 | 429 | 7.0 | 24.2 | -- | 7.5 | 91 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1059 | .5 | 600 | 478 | 7.5 | 18.0 | -- | 9.6 | 102 | -- | -- |
| 05 | 1100 | 3.3 | 600 | 478 | 7.5 | 17.9 | -- | 9.6 | 102 | -- | -- |
| 05 | 1102 | 14 | 600 | 483 | 7.5 | 17.8 | -- | 9.5 | 101 | -- | -- |
| 05 | 1101 | 29 | 600 | 483 | 7.5 | 17.8 | -- | 9.7 | 102 | -- | -- |
| 29 | 1047 | 0.3 | 600 | 360 | 7.5 | 14.5 | -- | 10.3 | 104 | -- | -- |
| 29 | 1047 | 3.5 | 600 | 368 | 7.5 | 14.5 | -- | 10.3 | 104 | -- | -- |
| 29 | 1049 | 14 | 600 | 363 | 7.5 | 14.5 | -- | 10.3 | 104 | -- | -- |
| 29 | 1048 | 27 | 600 | 354 | 7.5 | 14.5 | -- | 10.3 | 103 | -- | -- |

Table 18. Water-quality data for station 401422080391701, Ohio River at river mile 77.4, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1225 | 3.3 | 600 | 415 | 7.5 | 21.1 | -- | 8.9 | 101 | -- | -- |
| 26 | 1224 | 14 | 600 | 415 | 7.4 | 19.9 | -- | 8.8 | 97 | -- | -- |
| 26 | 1226 | 27 | 600 | 417 | 7.4 | 19.7 | -- | 8.6 | 95 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1908 | .1 | 600 | 480 | 7.7 | 22.5 | -- | 8.0 | 95 | -- | -- |
| 08 | 1909 | 3.3 | 600 | 472 | 7.7 | 21.9 | -- | 8.0 | 94 | -- | -- |
| 08 | 1910 | 15 | 600 | 468 | 7.8 | 21.1 | -- | 8.0 | 92 | -- | -- |
| 08 | 1909 | 30 | 600 | 469 | 7.8 | 20.8 | -- | 8.0 | 92 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1122 | .1 | 600 | 471 | 8.0 | 32.6 | -- | 7.2 | 101 | -- | -- |
| 14 | 1123 | 3.2 | 600 | 472 | 8.0 | 32.6 | -- | 7.2 | 102 | -- | -- |
| 14 | 1124 | 15 | 600 | 469 | 7.9 | 30.3 | -- | 6.5 | 88 | -- | -- |
| 14 | 1124 | 28 | 600 | 474 | 7.8 | 30.0 | -- | 6.0 | 80 | -- | -- |
| 27 | 1952 | .1 | 600 | 533 | 7.9 | 33.2 | -- | 6.9 | 99 | -- | -- |
| 27 | 1953 | 2.9 | 600 | 533 | 7.9 | 32.8 | -- | 6.7 | 95 | -- | -- |
| 27 | 1955 | 15 | 600 | 531 | 7.9 | 32.4 | -- | 7.0 | 99 | -- | -- |
| 27 | 1954 | 31 | 600 | 530 | 7.7 | 29.9 | -- | 6.5 | 88 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1018 | .1 | 600 | 554 | 7.8 | 30.3 | -- | 7.7 | 104 | -- | -- |
| 10 | 1019 | 3.0 | 600 | 555 | 7.7 | 30.3 | -- | 7.6 | 103 | -- | -- |
| 10 | 1020 | 16 | 600 | 549 | 7.7 | 28.4 | -- | 7.4 | 96 | -- | -- |
| 10 | 1020 | 30 | 600 | 549 | 7.4 | 27.4 | -- | 7.4 | 95 | -- | -- |
| 24 | 1011 | .2 | 600 | 516 | 7.6 | 31.6 | -- | 7.2 | 100 | -- | -- |
| 24 | 1012 | 3.3 | 600 | 516 | 7.6 | 31.6 | -- | 7.2 | 100 | -- | -- |
| 24 | 1014 | 15 | 600 | 514 | 7.4 | 29.9 | -- | 6.7 | 90 | -- | -- |
| 24 | 1013 | 30 | 600 | 513 | 7.3 | 28.5 | -- | 6.1 | 80 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1046 | .1 | 600 | 441 | 7.5 | 26.1 | -- | 7.3 | 92 | -- | -- |
| 21 | 1046 | 3.0 | 600 | 444 | 7.5 | 25.6 | -- | 7.2 | 90 | -- | -- |
| 21 | 1048 | 15 | 600 | 438 | 7.5 | 25.1 | -- | 7.2 | 89 | -- | -- |
| 21 | 1047 | 30 | 600 | 438 | 7.5 | 24.8 | -- | 7.1 | 88 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1100 | .5 | 600 | 499 | 7.6 | 21.3 | -- | 9.5 | 108 | -- | -- |
| 05 | 1050 | 3.3 | 600 | 498 | 7.6 | 19.6 | -- | 9.6 | 105 | -- | -- |
| 05 | 1052 | 15 | 600 | 500 | 7.5 | 18.0 | -- | 9.5 | 101 | -- | -- |
| 05 | 1051 | 30 | 600 | 496 | 7.5 | 17.9 | -- | 9.7 | 103 | -- | -- |
| 29 | 1058 | .2 | 600 | 363 | 7.5 | 15.8 | -- | 10.3 | 107 | -- | -- |
| 29 | 1058 | 2.9 | 600 | 361 | 7.5 | 15.6 | -- | 10.3 | 106 | -- | -- |
| 29 | 1100 | 16 | 600 | 365 | 7.5 | 14.8 | -- | 10.3 | 105 | -- | -- |
| 29 | 1059 | 27 | 600 | 367 | 7.4 | 14.6 | -- | 10.3 | 104 | -- | -- |

Table 19. Water-quality data for station 401148080400901, Ohio River at river mile 80.5, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1216 | 3.3 | 600 | 410 | 7.5 | 20.5 | -- | 9.0 | 101 | -- | -- |
| 26 | 1217 | 17 | 600 | 412 | 7.5 | 20.3 | -- | 8.9 | 99 | -- | -- |
| 26 | 1218 | 34 | 600 | 407 | 7.5 | 20.3 | -- | 8.8 | 99 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1917 | .1 | 600 | 484 | 7.6 | 21.2 | -- | 7.9 | 91 | -- | -- |
| 08 | 1918 | 3.3 | 600 | 485 | 7.6 | 21.2 | -- | 7.9 | 91 | -- | -- |
| 08 | 1919 | 16 | 600 | 476 | 7.6 | 21.0 | -- | 7.8 | 89 | -- | -- |
| 08 | 1918 | 35 | 600 | 475 | 7.6 | 20.9 | -- | 7.8 | 89 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1113 | .1 | 600 | 472 | 8.0 | 31.4 | -- | 6.9 | 95 | -- | -- |
| 14 | 1114 | 3.0 | 600 | 472 | 7.9 | 31.4 | -- | 6.8 | 95 | -- | -- |
| 14 | 1115 | 17 | 600 | 463 | 7.8 | 30.7 | -- | 5.8 | 79 | -- | -- |
| 14 | 1114 | 34 | 600 | 849 | 7.9 | 29.1 | -- | 5.0 | 66 | -- | -- |
| 27 | 2018 | .1 | 600 | 533 | 8.2 | 31.3 | -- | 8.4 | 116 | -- | -- |
| 27 | 2019 | 3.3 | 600 | 533 | 8.2 | 31.3 | -- | 8.4 | 116 | -- | -- |
| 27 | 2020 | 17 | 600 | 534 | 7.9 | 31.1 | -- | 7.3 | 101 | -- | -- |
| 27 | 2020 | 32 | 600 | 537 | 7.6 | 30.9 | -- | 6.3 | 86 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 1009 | .1 | 600 | 551 | 7.6 | 28.4 | -- | 7.2 | 94 | -- | -- |
| 10 | 1010 | 3.0 | 600 | 552 | 7.7 | 28.4 | -- | 7.3 | 95 | -- | -- |
| 10 | 1012 | 18 | 600 | 550 | 7.6 | 28.4 | -- | 6.9 | 90 | -- | -- |
| 10 | 1011 | 35 | 600 | 630 | 7.4 | 27.9 | -- | 5.6 | 72 | -- | -- |
| 24 | 1004 | .3 | 600 | 514 | 7.6 | 30.0 | -- | 7.4 | 100 | -- | -- |
| 24 | 1004 | 2.9 | 600 | 514 | 7.6 | 30.0 | -- | 7.4 | 100 | -- | -- |
| 24 | 1005 | 15 | 600 | 519 | 7.4 | 29.9 | -- | 6.6 | 89 | -- | -- |
| 24 | 1005 | 34 | 600 | 530 | 7.3 | 29.5 | -- | 5.4 | 73 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1034 | .1 | 600 | 453 | 7.5 | 25.2 | -- | 6.9 | 85 | -- | -- |
| 21 | 1034 | 2.9 | 600 | 455 | 7.4 | 25.2 | -- | 6.9 | 85 | -- | -- |
| 21 | 1036 | 17 | 600 | 454 | 7.5 | 25.3 | -- | 6.9 | 85 | -- | -- |
| 21 | 1035 | 34 | 600 | 458 | 7.5 | 25.2 | -- | 6.9 | 85 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1038 | .6 | 600 | 530 | 7.6 | 18.5 | -- | 9.5 | 102 | -- | -- |
| 05 | 1038 | 3.3 | 600 | 527 | 7.5 | 18.5 | -- | 9.5 | 102 | -- | -- |
| 05 | 1039 | 17 | 600 | 526 | 7.5 | 18.4 | -- | 9.4 | 101 | -- | -- |
| 05 | 1039 | 35 | 600 | 531 | 7.5 | 18.4 | -- | 9.4 | 101 | -- | -- |
| 29 | 1122 | 0.2 | 600 | 366 | 7.5 | 15.1 | -- | 10.2 | 104 | -- | -- |
| 29 | 1122 | 2.6 | 600 | 362 | 7.5 | 15.1 | -- | 10.2 | 104 | -- | -- |
| 29 | 1124 | 13 | 600 | 375 | 7.5 | 15.1 | -- | 10.2 | 104 | -- | -- |
| 29 | 1123 | 20 | 600 | 351 | 7.5 | 15.1 | -- | 10.2 | 104 | -- | -- |

Table 20. Water-quality data for station 401031080411601, Ohio River at river mile 82.3, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|------------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1208 | 3.3 | 600 | 420 | 7.5 | 20.5 | -- | 8.8 | 99 | -- | -- |
| 26 | 1209 | 18 | 600 | 430 | 7.5 | 20.3 | -- | 8.7 | 97 | -- | -- |
| 26 | 1210 | 35 | 600 | 428 | 7.4 | 20.3 | -- | 8.5 | 96 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1940 | .1 | 600 | 494 | 7.7 | 21.5 | -- | 8.0 | 93 | -- | -- |
| 08 | 1940 | 3.0 | 600 | 493 | 7.6 | 21.5 | -- | 8.0 | 93 | -- | -- |
| 08 | 1942 | 14 | 600 | 492 | 7.6 | 21.5 | -- | 8.0 | 93 | -- | -- |
| 08 | 1941 | 28 | 600 | 495 | 7.6 | 21.5 | -- | 8.0 | 93 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1054 | .1 | 600 | 472 | 7.9 | 31.2 | -- | 6.8 | 94 | -- | -- |
| 14 | 1055 | 3.0 | 600 | 469 | 7.9 | 31.2 | -- | 6.8 | 94 | -- | -- |
| 14 | 1057 | 20 | 600 | 490 | 7.8 | 30.7 | -- | 5.7 | 78 | -- | -- |
| 14 | 1055 | 41 | 600 | 543 | 7.7 | 29.8 | -- | 4.6 | 62 | -- | -- |
| 27 | 2025 | .3 | 600 | 541 | 8.0 | 31.1 | -- | 7.4 | 103 | -- | -- |
| 27 | 2025 | 2.9 | 600 | 540 | 8.0 | 31.2 | -- | 7.4 | 102 | -- | -- |
| 27 | 2027 | 17 | 600 | 549 | 7.8 | 31.1 | -- | 7.3 | 100 | -- | -- |
| 27 | 2026 | 33 | 600 | 570 | 7.5 | 30.6 | -- | 5.9 | 81 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 0956 | .1 | 600 | 560 | 7.6 | 28.2 | -- | 7.3 | 95 | -- | -- |
| 10 | 0957 | 3.0 | 600 | 562 | 7.7 | 28.2 | -- | 7.3 | 96 | -- | -- |
| 10 | 0959 | 17 | 600 | 566 | 7.6 | 28.2 | -- | 6.9 | 90 | -- | -- |
| 10 | 0958 | 35 | 600 | 561 | 7.5 | 28.1 | -- | 6.6 | 86 | -- | -- |
| 24 | 0957 | .2 | 600 | 519 | 7.4 | 29.4 | -- | 6.8 | 90 | -- | -- |
| 24 | 0958 | 3.0 | 600 | 527 | 7.4 | 29.4 | -- | 6.8 | 90 | -- | -- |
| 24 | 0959 | 17 | 600 | 523 | 7.4 | 29.4 | -- | 6.6 | 88 | -- | -- |
| 24 | 0958 | 33 | 600 | 537 | 7.4 | 29.4 | -- | 6.4 | 85 | -- | -- |
| September | | | | | | | | | | | |
| 21 | 1025 | .1 | 600 | 463 | 7.5 | 24.9 | -- | 7.2 | 88 | -- | -- |
| 21 | 1026 | 3.0 | 600 | 466 | 7.5 | 25.0 | -- | 7.1 | 87 | -- | -- |
| 21 | 1027 | 15 | 600 | 470 | 7.5 | 24.9 | -- | 7.0 | 87 | -- | -- |
| 21 | 1026 | 30 | 600 | 472 | 7.5 | 24.0 | -- | 7.0 | 85 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 1006 | .4 | 600 | 550 | 7.6 | 18.4 | -- | 9.3 | 99 | -- | -- |
| 05 | 1007 | 3.1 | 600 | 550 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 1010 | 16 | 600 | 550 | 7.5 | 18.3 | -- | 9.3 | 100 | -- | -- |
| 05 | 1008 | 33 | 600 | 553 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 29 | 1133 | .3 | 600 | 373 | 7.5 | 15.2 | -- | 10.1 | 103 | -- | -- |
| 29 | 1133 | 4.2 | 600 | 378 | 7.5 | 15.2 | -- | 10.1 | 103 | -- | -- |
| 29 | 1135 | 15 | 600 | 379 | 7.5 | 15.2 | -- | 10.1 | 103 | -- | -- |
| 29 | 1134 | 29 | 600 | 380 | 7.4 | 15.3 | -- | 10.1 | 103 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993

[ft = feet; $\mu\text{S}/\text{cm}$ = microsiemens per centimeter; $^{\circ}\text{C}$ = degrees Celsius; mg/L = milligrams per liter; $\mu\text{g}/\text{L}$ = micrograms per liter; -- = data not collected]

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance ($\mu\text{S}/\text{cm}$) | pH (standard units) | Temperature, water ($^{\circ}\text{C}$) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> ($\mu\text{g}/\text{L}$) | Chlorophyll <i>b</i> ($\mu\text{g}/\text{L}$) |
|-------------|------|---------------------|-------------------------------------|--|---------------------|---|---------------------------------|-------------------------|---------------------------------------|---|---|
| May | | | | | | | | | | | |
| 26 | 1141 | 3.3 | 500 | 415 | 7.5 | 20.9 | 1.5 | 9.0 | 102 | -- | -- |
| 26 | 1143 | 6.6 | 500 | 422 | 7.5 | 20.5 | -- | 8.8 | 99 | -- | -- |
| 26 | 1142 | 9.9 | 500 | 420 | 7.4 | 20.5 | -- | 8.6 | 97 | -- | -- |
| 26 | 1144 | 16 | 500 | 425 | 7.4 | 20.5 | -- | 8.7 | 97 | 4.2 | 0.3 |
| 26 | 1145 | 21 | 500 | 425 | 7.4 | 20.4 | -- | 8.6 | 97 | -- | -- |
| 26 | 1125 | 3.3 | 900 | 426 | 7.5 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1126 | 6.6 | 900 | 425 | 7.5 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1126 | 9.9 | 900 | 428 | 7.5 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1127 | 16 | 900 | 425 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1127 | 23 | 900 | 431 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1128 | 30 | 900 | 422 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1129 | 36 | 900 | 429 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1130 | 44 | 900 | 424 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1134 | 3.3 | 1,400 | 426 | 7.5 | 20.5 | -- | 8.8 | 99 | -- | -- |
| 26 | 1135 | 6.6 | 1,400 | 423 | 7.5 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1135 | 9.9 | 1,400 | 426 | 7.5 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1136 | 16 | 1,400 | 429 | 7.5 | 20.5 | -- | 8.7 | 97 | -- | -- |
| 26 | 1137 | 23 | 1,400 | 427 | 7.4 | 20.5 | -- | 8.6 | 97 | -- | -- |
| 26 | 1138 | 30 | 1,400 | 431 | 7.4 | 20.4 | -- | 8.5 | 96 | -- | -- |
| 26 | 1153 | 3.3 | 1,900 | 420 | 7.5 | 20.9 | -- | 8.9 | 101 | -- | -- |
| 26 | 1153 | 6.6 | 1,900 | 422 | 7.4 | 20.5 | -- | 8.7 | 98 | -- | -- |
| 26 | 1154 | 9.9 | 1,900 | 420 | 7.4 | 20.5 | -- | 8.5 | 96 | -- | -- |
| 26 | 1155 | 16 | 1,900 | 420 | 7.4 | 20.5 | -- | 8.6 | 96 | -- | -- |
| 26 | 1156 | 23 | 1,900 | 425 | 7.4 | 20.4 | -- | 8.5 | 95 | -- | -- |
| 26 | 1157 | 26 | 1,900 | 426 | 7.4 | 20.4 | -- | 8.4 | 94 | -- | -- |
| June | | | | | | | | | | | |
| 08 | 1955 | .7 | 1,400 | 491 | 7.6 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 1954 | 3.6 | 1,400 | 492 | 7.6 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 1954 | 7.2 | 1,400 | 490 | 7.6 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 1953 | 10 | 1,400 | 489 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 1952 | 16 | 1,400 | 489 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 1952 | 23 | 1,400 | 493 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 1951 | 30 | 1,400 | 489 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 1951 | 36 | 1,400 | 492 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 1950 | 44 | 1,400 | 494 | 7.6 | 21.6 | -- | 8.1 | 94 | -- | -- |
| 08 | 1957 | 1.0 | 900 | 493 | 7.6 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 1958 | 3.3 | 900 | 491 | 7.6 | 21.6 | -- | 8.2 | 95 | -- | -- |
| 08 | 1958 | 6.6 | 900 | 490 | 7.6 | 21.6 | -- | 8.2 | 95 | -- | -- |
| 08 | 1959 | 9.9 | 900 | 492 | 7.6 | 21.6 | -- | 8.2 | 95 | -- | -- |
| 08 | 1960 | 16 | 900 | 495 | 7.6 | 21.6 | -- | 8.2 | 95 | -- | -- |
| 08 | 2000 | 23 | 900 | 491 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2005 | .3 | 1,400 | 496 | 7.6 | 21.6 | -- | 8.2 | 95 | -- | -- |
| 08 | 2005 | 3.0 | 1,400 | 494 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2004 | 6.3 | 1,400 | 493 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2004 | 9.9 | 1,400 | 496 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2004 | 16 | 1,400 | 498 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2003 | 21 | 1,400 | 499 | 7.6 | 21.6 | -- | 8.1 | 94 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| June | | | | | | | | | | | |
| 08 | 2011 | 0.1 | 1,900 | 510 | 7.7 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 2011 | 3.0 | 1,900 | 504 | 7.7 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 2012 | 6.6 | 1,900 | 510 | 7.7 | 21.7 | -- | 8.2 | 95 | -- | -- |
| 08 | 2012 | 9.9 | 1,900 | 506 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2012 | 16 | 1,900 | 507 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2013 | 23 | 1,900 | 505 | 7.6 | 21.6 | -- | 8.1 | 95 | -- | -- |
| 08 | 2013 | 29 | 1,900 | 506 | 7.6 | 21.6 | -- | 8.1 | 94 | -- | -- |
| July | | | | | | | | | | | |
| 14 | 1007 | .1 | 500 | 472 | 7.9 | 30.8 | -- | 6.8 | 93 | -- | -- |
| 14 | 1008 | 3.1 | 500 | 472 | 7.8 | 30.8 | -- | 6.7 | 92 | -- | -- |
| 14 | 1009 | 5.2 | 500 | 473 | 7.9 | 30.9 | -- | 6.7 | 92 | -- | -- |
| 14 | 1010 | 9.9 | 500 | 472 | 7.9 | 30.8 | -- | 6.7 | 91 | -- | -- |
| 14 | 1010 | 15 | 500 | 473 | 7.8 | 30.8 | -- | 6.6 | 90 | -- | -- |
| 14 | 1011 | 20 | 500 | 471 | 7.8 | 30.8 | -- | 6.6 | 90 | -- | -- |
| 14 | 1012 | 25 | 500 | 475 | 7.8 | 30.7 | -- | 6.2 | 85 | -- | -- |
| 14 | 1013 | 30 | 500 | 476 | 7.8 | 30.6 | -- | 6.0 | 82 | -- | -- |
| 14 | 1014 | 35 | 500 | 478 | 7.7 | 30.6 | -- | 5.9 | 80 | -- | -- |
| 14 | 1015 | 40 | 500 | 478 | 7.7 | 30.6 | -- | 5.8 | 79 | -- | -- |
| 14 | 1016 | 45 | 500 | 480 | 7.7 | 30.4 | -- | 5.3 | 72 | -- | -- |
| 14 | 1016 | 47 | 500 | 480 | 7.7 | 30.4 | -- | 5.4 | 73 | -- | -- |
| 14 | 1021 | .1 | 900 | 471 | 7.9 | 30.9 | -- | 7.0 | 97 | -- | -- |
| 14 | 1021 | 3.1 | 900 | 471 | 7.9 | 30.9 | -- | 7.0 | 96 | -- | -- |
| 14 | 1022 | 5.0 | 900 | 472 | 7.9 | 31.0 | -- | 7.0 | 96 | -- | -- |
| 14 | 1022 | 9.8 | 900 | 472 | 7.9 | 30.9 | -- | 6.7 | 92 | -- | -- |
| 14 | 1023 | 15 | 900 | 472 | 7.9 | 30.8 | -- | 6.6 | 90 | -- | -- |
| 14 | 1024 | 20 | 900 | 472 | 7.9 | 30.8 | -- | 6.5 | 89 | -- | -- |
| 14 | 1024 | 25 | 900 | 476 | 7.8 | 30.7 | -- | 5.9 | 81 | -- | -- |
| 14 | 1033 | .1 | 1,400 | 473 | 7.9 | 31.0 | 5 | 6.9 | 94 | -- | -- |
| 14 | 1032 | 2.8 | 1,400 | 473 | 7.9 | 31.0 | -- | 6.9 | 94 | 10.0 | 1.0 |
| 14 | 1033 | 3.1 | 1,400 | 473 | 7.9 | 31.0 | -- | 6.9 | 94 | -- | -- |
| 14 | 1032 | 4.8 | 1,400 | 473 | 7.9 | 31.0 | -- | 6.8 | 94 | -- | -- |
| 14 | 1031 | 10 | 1,400 | 474 | 7.9 | 31.0 | -- | 6.5 | 89 | -- | -- |
| 14 | 1030 | 15 | 1,400 | 472 | 7.9 | 30.8 | -- | 6.5 | 89 | -- | -- |
| 14 | 1030 | 20 | 1,400 | 478 | 7.8 | 30.7 | -- | 5.9 | 81 | -- | -- |
| 14 | 1028 | 21 | 1,400 | 478 | 7.8 | 30.7 | -- | 5.8 | 79 | -- | -- |
| 14 | 1045 | .1 | 1,900 | 478 | 8.0 | 31.0 | -- | 6.9 | 95 | -- | -- |
| 14 | 1045 | 3.2 | 1,900 | 477 | 8.0 | 31.0 | -- | 6.9 | 94 | -- | -- |
| 14 | 1044 | 5.0 | 1,900 | 476 | 8.0 | 31.0 | -- | 6.8 | 93 | -- | -- |
| 14 | 1044 | 10 | 1,900 | 474 | 7.9 | 31.0 | -- | 6.7 | 92 | -- | -- |
| 14 | 1043 | 15 | 1,900 | 472 | 7.9 | 31.0 | -- | 6.7 | 92 | -- | -- |
| 14 | 1042 | 20 | 1,900 | 475 | 7.8 | 30.9 | -- | 6.2 | 85 | -- | -- |
| 14 | 1041 | 25 | 1,900 | 480 | 7.8 | 30.6 | -- | 5.7 | 77 | -- | -- |
| 14 | 1040 | 28 | 1,900 | 487 | 7.7 | 30.2 | -- | 4.3 | 58 | -- | -- |
| 27 | 2035 | .2 | 500 | 547 | 8.2 | 31.1 | -- | 8.2 | 114 | -- | -- |
| 27 | 2036 | 2.9 | 500 | 546 | 8.2 | 31.2 | -- | 8.3 | 115 | -- | -- |
| 27 | 2038 | 5.0 | 500 | 547 | 8.2 | 31.2 | -- | 7.3 | 101 | -- | -- |
| 27 | 2040 | 9.9 | 500 | 549 | 7.9 | 31.0 | -- | 6.4 | 88 | -- | -- |
| 27 | 2041 | 15 | 500 | 549 | 7.7 | 30.8 | -- | 6.2 | 85 | -- | -- |
| 27 | 2041 | 20 | 500 | 549 | 7.7 | 30.7 | -- | 5.7 | 79 | -- | -- |
| 27 | 2042 | 25 | 500 | 549 | 7.6 | 30.7 | -- | 6.5 | 89 | -- | -- |
| 27 | 2043 | 30 | 500 | 556 | 7.5 | 30.6 | -- | 5.9 | 81 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|--------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| July | | | | | | | | | | | |
| 27 | 2045 | 0.2 | 900 | 544 | 8.2 | 31.1 | -- | 8.3 | 114 | -- | -- |
| 27 | 2046 | 3.1 | 900 | 548 | 8.2 | 31.1 | -- | 7.9 | 109 | -- | -- |
| 27 | 2047 | 5.0 | 900 | 547 | 7.8 | 30.9 | -- | 6.8 | 93 | -- | -- |
| 27 | 2047 | 10 | 900 | 553 | 7.7 | 30.9 | -- | 6.5 | 89 | -- | -- |
| 27 | 2048 | 15 | 900 | 555 | 7.7 | 30.9 | -- | 6.3 | 86 | -- | -- |
| 27 | 2049 | 20 | 900 | 553 | 7.6 | 30.7 | -- | 5.8 | 79 | -- | -- |
| 27 | 2049 | 23 | 900 | 552 | 7.5 | 30.6 | -- | 6.0 | 82 | -- | -- |
| 27 | 2055 | .3 | 1,400 | 545 | 8.2 | 31.1 | -- | 8.3 | 114 | -- | -- |
| 27 | 2056 | 3.0 | 1,400 | 544 | 8.2 | 31.1 | -- | 8.3 | 115 | -- | -- |
| 27 | 2056 | 5.1 | 1,400 | 545 | 8.2 | 31.1 | -- | 8.3 | 115 | -- | -- |
| 27 | 2057 | 10 | 1,400 | 548 | 8.2 | 31.1 | -- | 8.3 | 115 | 10.0 | 1.5 |
| 27 | 2058 | 15 | 1,400 | 551 | 7.7 | 30.9 | -- | 7.1 | 97 | -- | -- |
| 27 | 2059 | 20 | 1,400 | 562 | 7.5 | 30.6 | -- | 6.1 | 83 | -- | -- |
| 27 | 2059 | 21 | 1,400 | 562 | 7.5 | 30.6 | -- | 6.0 | 82 | -- | -- |
| 27 | 2103 | 3.0 | 1,900 | 555 | 7.9 | 30.9 | -- | 7.5 | 103 | -- | -- |
| 27 | 2104 | 5.2 | 1,900 | 553 | 7.9 | 30.9 | -- | 7.5 | 104 | -- | -- |
| 27 | 2105 | 9.8 | 1,900 | 554 | 7.9 | 30.9 | -- | 7.4 | 102 | -- | -- |
| 27 | 2106 | 15 | 1,900 | 561 | 7.7 | 30.8 | -- | 6.7 | 92 | -- | -- |
| 27 | 2107 | 20 | 1,900 | 561 | 7.6 | 30.7 | -- | 6.3 | 86 | -- | -- |
| 27 | 2108 | 25 | 1,900 | 560 | 7.5 | 30.7 | -- | 6.1 | 84 | -- | -- |
| 27 | 2108 | 29 | 1,900 | 550 | 7.4 | 30.5 | -- | 5.5 | 75 | -- | -- |
| August | | | | | | | | | | | |
| 10 | 0944 | .1 | 500 | 557 | 7.6 | 28.0 | -- | 7.0 | 91 | -- | -- |
| 10 | 0944 | 3.0 | 500 | 555 | 7.6 | 28.0 | -- | 7.0 | 91 | -- | -- |
| 10 | 0943 | 5.0 | 500 | 554 | 7.6 | 28.0 | -- | 7.0 | 91 | -- | -- |
| 10 | 0943 | 10 | 500 | 555 | 7.6 | 28.0 | -- | 6.9 | 89 | -- | -- |
| 10 | 0942 | 15 | 500 | 556 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0941 | 20 | 500 | 557 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0940 | 25 | 500 | 555 | 7.6 | 27.9 | -- | 6.7 | 87 | -- | -- |
| 10 | 0940 | 30 | 500 | 557 | 7.6 | 27.9 | -- | 6.7 | 87 | -- | -- |
| 10 | 0939 | 35 | 500 | 559 | 7.6 | 27.9 | -- | 6.6 | 86 | -- | -- |
| 10 | 0939 | 40 | 500 | 560 | 7.5 | 27.9 | -- | 6.6 | 85 | -- | -- |
| 10 | 0937 | 44 | 500 | 562 | 7.5 | 27.8 | -- | 6.6 | 85 | -- | -- |
| 10 | 0933 | .1 | 900 | 555 | 7.6 | 28.0 | -- | 7.0 | 90 | -- | -- |
| 10 | 0933 | 3.0 | 900 | 555 | 7.6 | 28.0 | -- | 6.9 | 90 | -- | -- |
| 10 | 0932 | 5.0 | 900 | 555 | 7.6 | 28.0 | -- | 6.9 | 90 | -- | -- |
| 10 | 0931 | 10 | 900 | 555 | 7.6 | 28.0 | -- | 6.9 | 89 | -- | -- |
| 10 | 0931 | 15 | 900 | 555 | 7.6 | 28.0 | -- | 6.9 | 89 | -- | -- |
| 10 | 0930 | 20 | 900 | 555 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0929 | 25 | 900 | 555 | 7.6 | 28.0 | -- | 6.7 | 87 | -- | -- |
| 10 | 0928 | 30 | 900 | 555 | 7.6 | 27.9 | -- | 6.7 | 87 | -- | -- |
| 10 | 0923 | .1 | 1,400 | 555 | 7.6 | 28.0 | -- | 7.0 | 90 | -- | -- |
| 10 | 0923 | 3.0 | 1,400 | 556 | 7.6 | 28.0 | -- | 6.9 | 90 | -- | -- |
| 10 | 0922 | 5.0 | 1,400 | 556 | 7.6 | 28.0 | -- | 6.9 | 89 | -- | -- |
| 10 | 0921 | 10 | 1,400 | 556 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0920 | 15 | 1,400 | 555 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0919 | 20 | 1,400 | 555 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |
| 10 | 0918 | 21 | 1,400 | 555 | 7.6 | 28.0 | -- | 6.8 | 88 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|-----------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| September | | | | | | | | | | | |
| 21 | 0932 | 0.1 | 500 | 470 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0933 | 2.8 | 500 | 469 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0933 | 5.0 | 500 | 470 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0934 | 9.9 | 500 | 470 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0935 | 15 | 500 | 471 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0935 | 20 | 500 | 471 | 7.4 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0936 | 25 | 500 | 471 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0936 | 30 | 500 | 471 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0937 | 35 | 500 | 471 | 7.4 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0944 | 40 | 500 | 471 | 7.5 | 24.6 | -- | 7.1 | 87 | -- | -- |
| 21 | 0945 | 45 | 500 | 471 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0923 | .1 | 900 | 471 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0924 | 2.9 | 900 | 470 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0925 | 4.9 | 900 | 469 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0925 | 10 | 900 | 471 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0926 | 15 | 900 | 469 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0926 | 20 | 900 | 470 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0927 | 25 | 900 | 473 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0928 | 29 | 900 | 474 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0917 | .1 | 1,400 | 474 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0916 | 2.9 | 1,400 | 474 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0916 | 5.0 | 1,400 | 474 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0915 | 10 | 1,400 | 472 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0914 | 15 | 1,400 | 472 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0913 | 21 | 1,400 | 473 | 7.5 | 24.6 | -- | 7.0 | 85 | -- | -- |
| 21 | 0900 | .1 | 1,900 | 474 | 7.5 | 24.6 | -- | 7.1 | 87 | -- | -- |
| 21 | 0901 | 2.9 | 1,900 | 474 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0901 | 4.8 | 1,900 | 474 | 7.5 | 24.6 | -- | 7.1 | 86 | -- | -- |
| 21 | 0902 | 9.8 | 1,900 | 474 | 7.5 | 24.6 | -- | 7.1 | 86 | -- | -- |
| 21 | 0903 | 15 | 1,900 | 473 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0903 | 20 | 1,900 | 475 | 7.5 | 24.6 | -- | 7.1 | 86 | -- | -- |
| 21 | 0904 | 25 | 1,900 | 477 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| 21 | 0905 | 30 | 1,900 | 469 | 7.5 | 24.6 | -- | 7.0 | 86 | -- | -- |
| October | | | | | | | | | | | |
| 05 | 0953 | 3.3 | 500 | 562 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0954 | 5.1 | 500 | 557 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0955 | 15 | 500 | 554 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0956 | 20 | 500 | 553 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0957 | 25 | 500 | 556 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0957 | 30 | 500 | 559 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0958 | 35 | 500 | 554 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0958 | 40 | 500 | 563 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0958 | 44 | 500 | 558 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0936 | .4 | 900 | 562 | 7.5 | 18.3 | -- | 9.4 | 100 | -- | -- |
| 05 | 0937 | 3.2 | 900 | 559 | 7.5 | 18.4 | -- | 9.4 | 101 | -- | -- |
| 05 | 0937 | 4.8 | 900 | 562 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0938 | 9.9 | 900 | 560 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0939 | 15 | 900 | 565 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0940 | 20 | 900 | 562 | 7.5 | 18.4 | -- | 9.4 | 101 | -- | -- |
| 05 | 0940 | 25 | 900 | 560 | 7.5 | 18.3 | -- | 9.3 | 100 | -- | -- |
| 05 | 0941 | 29 | 900 | 564 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|---------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| October | | | | | | | | | | | |
| 05 | 0930 | 0.2 | 1,400 | 559 | 7.5 | 18.4 | -- | 9.4 | 100 | -- | -- |
| 05 | 0929 | 3.1 | 1,400 | 558 | 7.5 | 18.4 | -- | 9.3 | 100 | 3 | 0 |
| 05 | 0928 | 5.0 | 1,400 | 561 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0927 | 9.9 | 1,400 | 556 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0927 | 15 | 1,400 | 557 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0926 | 20 | 1,400 | 554 | 7.5 | 18.4 | -- | 9.3 | 100 | -- | -- |
| 05 | 0925 | 21 | 1,400 | 561 | 7.5 | 18.4 | -- | 9.5 | 102 | -- | -- |
| 05 | 0909 | .3 | 1,900 | 563 | 7.5 | 18.4 | -- | 9.2 | 98 | -- | -- |
| 05 | 0912 | 2.9 | 1,900 | 558 | 7.5 | 18.4 | -- | 9.3 | 99 | -- | -- |
| 05 | 0913 | 5.0 | 1,900 | 561 | 7.5 | 18.4 | -- | 9.5 | 101 | -- | -- |
| 05 | 0913 | 9.8 | 1,900 | 564 | 7.5 | 18.4 | -- | 9.7 | 104 | -- | -- |
| 05 | 0915 | 15 | 1,900 | 558 | 7.5 | 18.4 | -- | 9.8 | 106 | -- | -- |
| 05 | 0916 | 20 | 1,900 | 561 | 7.5 | 18.4 | -- | 9.9 | 106 | -- | -- |
| 05 | 0917 | 25 | 1,900 | 556 | 7.5 | 18.4 | -- | 10.0 | 107 | -- | -- |
| 05 | 0918 | 30 | 1,900 | 554 | 7.5 | 18.4 | -- | 9.9 | 106 | -- | -- |
| 29 | 1208 | 4.8 | 500 | 373 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1208 | 9.8 | 500 | 374 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1209 | 15 | 500 | 374 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1209 | 20 | 500 | 374 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1210 | 25 | 500 | 370 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1210 | 30 | 500 | 371 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1211 | 35 | 500 | 370 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1212 | 41 | 500 | 368 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1200 | .3 | 900 | 373 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1201 | 3.1 | 900 | 372 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1202 | 5.0 | 900 | 373 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1203 | 9.9 | 900 | 374 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1204 | 16 | 900 | 371 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1205 | 20 | 900 | 376 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1206 | 25 | 900 | 374 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1208 | 30 | 900 | 376 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1151 | .1 | 1,400 | 374 | 7.5 | 15.4 | -- | 10.1 | 103 | 3.4 | 0.2 |
| 29 | 1152 | 2.8 | 1,400 | 373 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1152 | 3.0 | 1,400 | 374 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1153 | 5.1 | 1,400 | 374 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1153 | 9.9 | 1,400 | 377 | 7.5 | 15.4 | -- | 10.1 | 104 | -- | -- |
| 29 | 1154 | 15 | 1,400 | 373 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1155 | 21 | 1,400 | 374 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1146 | .2 | 1,900 | 376 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1146 | 3.3 | 1,900 | 378 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1147 | 5.0 | 1,900 | 374 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1147 | 9.7 | 1,900 | 373 | 7.5 | 15.5 | -- | 10.1 | 104 | -- | -- |
| 29 | 1148 | 15 | 1,900 | 382 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1148 | 20 | 1,900 | 375 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |
| 29 | 1149 | 29 | 1,900 | 374 | 7.5 | 15.4 | -- | 10.1 | 103 | -- | -- |

Table 21. Water-quality data for station 400913080421201, Ohio River at river mile 84.0, May to October 1993--Continued

| Date | Time | Sampling depth (ft) | Sample location (ft from left bank) | Specific conductance (µS/cm) | pH (standard units) | Temperature, water (°C) | Transparency (Secchi disk) (ft) | Dissolved oxygen (mg/L) | Dissolved oxygen (percent saturation) | Chlorophyll <i>a</i> (µg/L) | Chlorophyll <i>b</i> (µg/L) |
|--------|------|---------------------|-------------------------------------|------------------------------|---------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------------|
| August | | | | | | | | | | | |
| 10 | 0915 | 0.1 | 1,900 | 556 | 7.6 | 28.1 | -- | 6.8 | 88 | -- | -- |
| 10 | 0914 | 3.0 | 1,900 | 556 | 7.6 | 28.1 | -- | 6.7 | 87 | -- | -- |
| 10 | 0914 | 5.0 | 1,900 | 556 | 7.6 | 28.1 | -- | 6.7 | 87 | -- | -- |
| 10 | 0912 | 10 | 1,900 | 556 | 7.5 | 28.1 | -- | 6.6 | 86 | -- | -- |
| 10 | 0910 | 15 | 1,900 | 556 | 7.5 | 28.0 | -- | 6.6 | 86 | -- | -- |
| 10 | 0909 | 20 | 1,900 | 556 | 7.5 | 28.1 | -- | 6.6 | 86 | -- | -- |
| 10 | 0908 | 25 | 1,900 | 557 | 7.5 | 28.0 | -- | 6.4 | 84 | -- | -- |
| 10 | 0908 | 30 | 1,900 | 557 | 7.4 | 27.9 | -- | 4.7 | 61 | -- | -- |
| 24 | 0942 | .1 | 500 | 528 | 7.6 | 29.3 | -- | 7.2 | 96 | -- | -- |
| 24 | 0942 | 2.9 | 500 | 528 | 7.6 | 29.3 | -- | 7.2 | 96 | -- | -- |
| 24 | 0941 | 4.9 | 500 | 528 | 7.6 | 29.3 | -- | 7.2 | 95 | -- | -- |
| 24 | 0941 | 9.8 | 500 | 528 | 7.6 | 29.3 | -- | 5.4 | 72 | -- | -- |
| 24 | 0940 | 15 | 500 | 528 | 7.6 | 29.3 | -- | 7.1 | 94 | -- | -- |
| 24 | 0940 | 20 | 500 | 529 | 7.6 | 29.3 | -- | 6.2 | 83 | -- | -- |
| 24 | 0939 | 25 | 500 | 528 | 7.6 | 29.3 | -- | 6.2 | 82 | -- | -- |
| 24 | 0939 | 30 | 500 | 532 | 7.6 | 29.3 | -- | 6.3 | 56 | -- | -- |
| 24 | 0938 | 35 | 500 | 532 | 7.6 | 29.3 | -- | 6.1 | 82 | -- | -- |
| 24 | 0938 | 40 | 500 | 532 | 7.6 | 29.3 | -- | 6.4 | 85 | -- | -- |
| 24 | 0937 | 45 | 500 | 528 | 7.5 | 29.3 | -- | 6.4 | 85 | -- | -- |
| 24 | 0937 | 46 | 500 | 534 | 7.5 | 29.3 | -- | 6.1 | 81 | -- | -- |
| 24 | 0930 | .1 | 900 | 528 | 7.6 | 29.3 | -- | 7.6 | 101 | -- | -- |
| 24 | 0930 | 3.0 | 900 | 529 | 7.6 | 29.3 | -- | 7.3 | 97 | -- | -- |
| 24 | 0930 | 4.9 | 900 | 529 | 7.6 | 29.3 | -- | 7.2 | 97 | -- | -- |
| 24 | 0931 | 9.9 | 900 | 527 | 7.6 | 29.3 | -- | 7.1 | 95 | -- | -- |
| 24 | 0931 | 15 | 900 | 529 | 7.5 | 29.3 | -- | 7.1 | 95 | -- | -- |
| 24 | 0932 | 20 | 900 | 529 | 7.5 | 29.3 | -- | 7.1 | 94 | -- | -- |
| 24 | 0932 | 25 | 900 | 528 | 7.6 | 29.3 | -- | 7.2 | 95 | -- | -- |
| 24 | 0933 | 27 | 900 | 528 | 7.6 | 29.3 | -- | 7.2 | 95 | -- | -- |
| 24 | 0925 | .1 | 1,400 | 528 | 7.5 | 29.3 | -- | 7.1 | 95 | -- | -- |
| 24 | 0924 | 2.9 | 1,400 | 529 | 7.5 | 29.3 | -- | 7.1 | 94 | -- | -- |
| 24 | 0923 | 4.9 | 1,400 | 530 | 7.5 | 29.3 | -- | 7.1 | 95 | -- | -- |
| 24 | 0923 | 10 | 1,400 | 528 | 7.5 | 29.3 | -- | 7.0 | 94 | 6.9 | 0.9 |
| 24 | 0922 | 15 | 1,400 | 527 | 7.5 | 29.3 | -- | 7.1 | 94 | -- | -- |
| 24 | 0921 | 20 | 1,400 | 525 | 7.5 | 29.3 | -- | 7.1 | 95 | -- | -- |
| 24 | 0920 | 21 | 1,400 | 531 | 7.5 | 29.3 | -- | 7.1 | 94 | -- | -- |
| 24 | 0916 | .1 | 1,900 | 529 | 7.5 | 29.3 | -- | 6.8 | 91 | -- | -- |
| 24 | 0915 | 2.8 | 1,900 | 528 | 7.5 | 29.3 | -- | 6.8 | 90 | -- | -- |
| 24 | 0914 | 4.8 | 1,900 | 529 | 7.5 | 29.3 | -- | 6.7 | 90 | -- | -- |
| 24 | 0914 | 10 | 1,900 | 532 | 7.5 | 29.3 | -- | 6.8 | 90 | -- | -- |
| 24 | 0913 | 15 | 1,900 | 528 | 7.5 | 29.3 | -- | 6.8 | 90 | -- | -- |
| 24 | 0912 | 20 | 1,900 | 524 | 7.4 | 29.3 | -- | 6.6 | 89 | -- | -- |
| 24 | 0910 | 25 | 1,900 | 534 | 7.4 | 29.3 | -- | 6.7 | 89 | -- | -- |
| 24 | 0909 | 30 | 1,900 | 540 | 7.4 | 29.3 | -- | 6.4 | 85 | -- | -- |

Table 22. Daily maximum, minimum, and mean specific conductance at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993

[---, value not determined]

| Specific conductance, in microsiemens per centimeter at 25 degrees Celsius | | | | | | | | | |
|--|---------|---------|------|---------|---------|------|---------|---------|------|
| Day | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | 441 | 435 | 437 | 482 | 479 | 480 |
| 2 | --- | --- | --- | 457 | 441 | 449 | 483 | 476 | 478 |
| 3 | --- | --- | --- | 461 | 452 | 455 | 494 | 483 | 489 |
| 4 | --- | --- | --- | 465 | 459 | 462 | 493 | 486 | 491 |
| 5 | --- | --- | --- | 470 | 461 | 465 | 486 | 478 | 481 |
| 6 | --- | --- | --- | 479 | 467 | 475 | --- | --- | --- |
| 7 | --- | --- | --- | 474 | 465 | 471 | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | --- | 438 | 384 | 393 | --- | --- | --- |
| 11 | --- | --- | --- | 401 | 386 | 392 | --- | --- | --- |
| 12 | 306 | 300 | 303 | 406 | 397 | 404 | --- | --- | --- |
| 13 | 312 | 300 | 306 | 397 | 369 | 378 | --- | --- | --- |
| 14 | 322 | 312 | 317 | 380 | 372 | 376 | --- | --- | --- |
| 15 | 335 | 322 | 327 | 385 | 376 | 380 | 497 | 495 | 496 |
| 16 | 350 | 335 | 342 | 392 | 385 | 388 | 497 | 494 | 495 |
| 17 | 350 | 347 | 348 | 391 | 386 | 389 | 495 | 490 | 492 |
| 18 | 367 | 347 | 355 | 394 | 387 | 390 | 492 | 490 | 491 |
| 19 | 374 | 366 | 368 | 408 | 392 | 399 | 498 | 491 | 495 |
| 20 | 392 | 374 | 383 | 414 | 406 | 410 | 503 | 498 | 501 |
| 21 | 395 | 390 | 393 | 440 | 404 | 423 | 503 | 501 | 502 |
| 22 | 391 | 380 | 385 | 439 | 433 | 435 | 503 | 500 | 502 |
| 23 | 394 | 386 | 391 | 448 | 432 | 437 | 504 | 498 | 501 |
| 24 | 397 | 389 | 393 | 459 | 444 | 453 | 512 | 504 | 508 |
| 25 | 406 | 397 | 401 | 462 | 457 | 458 | 522 | 512 | 516 |
| 26 | 425 | 406 | 414 | 462 | 455 | 458 | 532 | 522 | 527 |
| 27 | 441 | 425 | 434 | 462 | 456 | 459 | 535 | 531 | 533 |
| 28 | 450 | 439 | 442 | 471 | 459 | 465 | 534 | 530 | 533 |
| 29 | 446 | 436 | 442 | 478 | 469 | 474 | 531 | 517 | 525 |
| 30 | 445 | 436 | 440 | 481 | 476 | 478 | 517 | 501 | 508 |
| 31 | 442 | 434 | 438 | --- | --- | --- | 510 | 499 | 503 |
| Month | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Table 22. *Daily maximum, minimum, and mean specific conductance at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993--Continued*

| Specific conductance, in microsiemens per centimeter at 25 degrees Celsius | | | | | | | | | |
|--|---------|---------|------|-----------|---------|------|---------|---------|------|
| Day | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 529 | 510 | 520 | 555 | 550 | 554 | 553 | 502 | 525 |
| 2 | 530 | 522 | 526 | 553 | 545 | 550 | 553 | 510 | 543 |
| 3 | 523 | 518 | 521 | 547 | 523 | 538 | 510 | 454 | 476 |
| 4 | 527 | 520 | 522 | 553 | 518 | 534 | 460 | 449 | 455 |
| 5 | 531 | 520 | 525 | 548 | 529 | 534 | 451 | 384 | 424 |
| 6 | 541 | 531 | 536 | 547 | 535 | 539 | 394 | 381 | 387 |
| 7 | 541 | 537 | 539 | 552 | 545 | 549 | 410 | 394 | 405 |
| 8 | 540 | 526 | 532 | 549 | 505 | 528 | 409 | 396 | 402 |
| 9 | 527 | 511 | 519 | 505 | 489 | 497 | 396 | 378 | 388 |
| 10 | 515 | 499 | 507 | 489 | 484 | 485 | 378 | 368 | 373 |
| 11 | 512 | 507 | 509 | 484 | 477 | 482 | 369 | 355 | 362 |
| 12 | 507 | 505 | 506 | 477 | 462 | 470 | 356 | 346 | 350 |
| 13 | 509 | 506 | 507 | 462 | 443 | 451 | 346 | 338 | 341 |
| 14 | 509 | 506 | 508 | 443 | 431 | 437 | 348 | 340 | 344 |
| 15 | 506 | 497 | 501 | 432 | 427 | 429 | 353 | 348 | 351 |
| 16 | 498 | 493 | 495 | 427 | 415 | 420 | 353 | 348 | 351 |
| 17 | 493 | 491 | 492 | 417 | 414 | 415 | 349 | 346 | 347 |
| 18 | 496 | 492 | 494 | 421 | 416 | 419 | 352 | 349 | 350 |
| 19 | 498 | 494 | 495 | 434 | 421 | 428 | 362 | 351 | 356 |
| 20 | 502 | 497 | 499 | 445 | 434 | 439 | 391 | 334 | 367 |
| 21 | 504 | 500 | 502 | 464 | 444 | 451 | 416 | 391 | 407 |
| 22 | 507 | 500 | 504 | 474 | 463 | 467 | 411 | 402 | 407 |
| 23 | 515 | 506 | 511 | 489 | 474 | 483 | 404 | 389 | 398 |
| 24 | 531 | 515 | 521 | 493 | 488 | 491 | 391 | 372 | 381 |
| 25 | 543 | 531 | 536 | 508 | 493 | 500 | 395 | 387 | 392 |
| 26 | 553 | 542 | 547 | 510 | 502 | 507 | 387 | 362 | 371 |
| 27 | 561 | 553 | 557 | 502 | 467 | 480 | 374 | 356 | 362 |
| 28 | 566 | 561 | 564 | 489 | 455 | 472 | --- | --- | --- |
| 29 | 567 | 563 | 565 | 478 | 447 | 467 | --- | --- | --- |
| 30 | 564 | 556 | 559 | 503 | 447 | 474 | --- | --- | --- |
| 31 | 557 | 553 | 555 | --- | --- | --- | --- | --- | --- |
| Month | 567 | 491 | 522 | 555 | 414 | 483 | --- | --- | --- |

Table 23. Daily maximum, minimum, and median pH at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993

| [---, value not determined] | | | | | | | | | |
|-----------------------------|---------|---------|------|---------|---------|------|---------|---------|------|
| pH, in standard units | | | | | | | | | |
| Day | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | 7.8 | 7.6 | 7.7 | 7.6 | 7.5 | 7.6 |
| 2 | --- | --- | --- | 7.9 | 7.7 | 7.8 | 7.7 | 7.5 | 7.6 |
| 3 | --- | --- | --- | 7.9 | 7.8 | 7.9 | 7.6 | 7.5 | 7.5 |
| 4 | --- | --- | --- | 8.1 | 7.9 | 7.9 | 7.7 | 7.5 | 7.6 |
| 5 | --- | --- | --- | 7.9 | 7.8 | 7.9 | 7.6 | 7.4 | 7.5 |
| 6 | --- | --- | --- | 8.1 | 7.8 | 7.9 | --- | --- | --- |
| 7 | --- | --- | --- | 7.9 | 7.8 | 7.9 | --- | --- | --- |
| 8 | --- | --- | --- | 7.9 | 7.6 | 7.8 | --- | --- | --- |
| 9 | --- | --- | --- | 7.9 | 7.7 | 7.8 | --- | --- | --- |
| 10 | --- | --- | --- | 7.8 | 7.7 | 7.7 | --- | --- | --- |
| 11 | --- | --- | --- | 7.7 | 7.7 | 7.7 | --- | --- | --- |
| 12 | 8.4 | 7.7 | 7.9 | 7.7 | 7.6 | 7.7 | --- | --- | --- |
| 13 | 7.9 | 7.7 | 7.9 | 7.7 | 7.6 | 7.6 | --- | --- | --- |
| 14 | 8.5 | 7.7 | 8.0 | 7.9 | 7.6 | 7.7 | --- | --- | --- |
| 15 | 8.5 | 7.9 | 8.2 | 7.7 | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 |
| 16 | 8.3 | 7.8 | 8.0 | 7.7 | 7.5 | 7.6 | 7.6 | 7.5 | 7.6 |
| 17 | 8.1 | 7.8 | 7.9 | 7.7 | 7.5 | 7.5 | 7.8 | 7.6 | 7.7 |
| 18 | 8.0 | 7.7 | 7.8 | 7.5 | 7.4 | 7.4 | 7.9 | 7.7 | 7.8 |
| 19 | 7.8 | 7.6 | 7.6 | 7.4 | 7.2 | 7.3 | 7.9 | 7.7 | 7.8 |
| 20 | 7.7 | 7.5 | 7.6 | 7.2 | 7.1 | 7.2 | 8.0 | 7.7 | 7.8 |
| 21 | 7.6 | 7.5 | 7.5 | 7.4 | 7.1 | 7.1 | 8.3 | 7.8 | 7.9 |
| 22 | 7.7 | 7.5 | 7.7 | 7.7 | 7.4 | 7.5 | 8.3 | 7.9 | 8.0 |
| 23 | 7.7 | 7.6 | 7.6 | 7.6 | 7.4 | 7.5 | 8.3 | 7.8 | 7.9 |
| 24 | 7.6 | 7.6 | 7.6 | 7.7 | 7.6 | 7.7 | 7.9 | 7.8 | 7.8 |
| 25 | 7.7 | 7.6 | 7.6 | 7.7 | 7.6 | 7.6 | 7.9 | 7.8 | 7.9 |
| 26 | 7.9 | 7.5 | 7.6 | 7.7 | 7.6 | 7.7 | 7.9 | 7.8 | 7.8 |
| 27 | 7.9 | 7.8 | 7.8 | 7.7 | 7.5 | 7.7 | 8.1 | 7.7 | 7.8 |
| 28 | 7.8 | 7.8 | 7.8 | 7.6 | 7.5 | 7.6 | 8.1 | 8.0 | 8.1 |
| 29 | 8.0 | 7.8 | 7.9 | 7.6 | 7.6 | 7.6 | 8.4 | 8.0 | 8.1 |
| 30 | 7.9 | 7.8 | 7.9 | 7.6 | 7.5 | 7.5 | 8.3 | 7.9 | 8.1 |
| 31 | 8.0 | 7.7 | 7.9 | --- | --- | --- | 8.0 | 7.7 | 7.8 |
| Month | --- | --- | --- | 8.1 | 7.1 | --- | --- | --- | --- |

Table 23. Daily maximum, minimum, and median pH at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993--Continued

| Day | pH, in standard units | | | | | | | | |
|-------|-----------------------|---------|------|-----------|---------|------|---------|---------|------|
| | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 7.8 | 7.7 | 7.7 | 7.8 | 7.6 | 7.7 | 7.5 | 7.4 | 7.4 |
| 2 | 7.7 | 7.6 | 7.6 | 7.7 | 7.4 | 7.6 | 7.5 | 7.5 | 7.5 |
| 3 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 4 | 7.7 | 7.6 | 7.6 | 7.5 | 7.4 | 7.4 | 7.6 | 7.5 | 7.5 |
| 5 | 7.7 | 7.6 | 7.6 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.5 |
| 6 | 7.7 | 7.6 | 7.6 | 7.6 | 7.4 | 7.5 | 7.6 | 7.4 | 7.5 |
| 7 | 7.9 | 7.6 | 7.6 | 7.6 | 7.4 | 7.5 | 7.6 | 7.4 | 7.5 |
| 8 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 | 7.4 | 7.6 | 7.4 | 7.5 |
| 9 | 7.7 | 7.7 | 7.7 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 |
| 10 | 7.7 | 7.6 | 7.7 | 7.6 | 7.5 | 7.5 | 7.4 | 7.3 | 7.4 |
| 11 | 7.8 | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 | 7.4 | 7.3 | 7.3 |
| 12 | 7.8 | 7.6 | 7.6 | 7.7 | 7.6 | 7.6 | 7.5 | 7.4 | 7.4 |
| 13 | 7.7 | 7.6 | 7.6 | 7.7 | 7.6 | 7.6 | 7.5 | 7.4 | 7.4 |
| 14 | 8.0 | 7.7 | 7.8 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 | 7.4 |
| 15 | 7.9 | 7.6 | 7.8 | 7.8 | 7.7 | 7.8 | 7.5 | 7.4 | 7.4 |
| 16 | 7.7 | 7.5 | 7.6 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 | 7.5 |
| 17 | 7.7 | 7.5 | 7.5 | 7.7 | 7.7 | 7.7 | 7.5 | 7.5 | 7.5 |
| 18 | 7.7 | 7.6 | 7.6 | 7.8 | 7.7 | 7.7 | 7.6 | 7.4 | 7.5 |
| 19 | 7.7 | 7.6 | 7.6 | 7.7 | 7.7 | 7.7 | 7.5 | 7.4 | 7.5 |
| 20 | 7.9 | 7.6 | 7.7 | 7.7 | 7.7 | 7.7 | 7.5 | 7.4 | 7.4 |
| 21 | 8.1 | 7.8 | 8.0 | 7.7 | 7.4 | 7.7 | 7.4 | 7.3 | 7.3 |
| 22 | 8.1 | 7.9 | 8.0 | 7.5 | 7.4 | 7.5 | 7.4 | 7.3 | 7.4 |
| 23 | 7.9 | 7.8 | 7.8 | 7.5 | 7.4 | 7.4 | 7.4 | 7.3 | 7.3 |
| 24 | 7.9 | 7.8 | 7.8 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 |
| 25 | 7.9 | 7.8 | 7.8 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 |
| 26 | 7.9 | 7.8 | 7.8 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 |
| 27 | 8.0 | 7.8 | 7.9 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 |
| 28 | 8.0 | 7.9 | 7.9 | 7.4 | 7.4 | 7.4 | --- | --- | --- |
| 29 | 8.0 | 7.8 | 7.9 | 7.4 | 7.4 | 7.4 | --- | --- | --- |
| 30 | 7.9 | 7.7 | 7.8 | 7.4 | 7.4 | 7.4 | --- | --- | --- |
| 31 | 7.7 | 7.6 | 7.7 | --- | --- | --- | --- | --- | --- |
| Month | 8.1 | 7.5 | --- | 7.8 | 7.3 | --- | --- | --- | --- |

Table 24. *Daily maximum, minimum, and mean water temperature at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993*

[---, value not determined]

| Water temperature, in degrees Celsius | | | | | | | | | |
|---------------------------------------|---------|---------|------|---------|---------|------|---------|---------|------|
| Day | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | 23.0 | 19.2 | 21.8 | 29.6 | 28.5 | 29.0 |
| 2 | --- | --- | --- | 22.3 | 20.6 | 21.6 | 29.1 | 27.4 | 28.2 |
| 3 | --- | --- | --- | 22.4 | 20.6 | 21.5 | 29.0 | 26.5 | 27.6 |
| 4 | --- | --- | --- | 21.3 | 20.0 | 20.8 | 29.4 | 27.7 | 28.4 |
| 5 | --- | --- | --- | 20.9 | 20.0 | 20.4 | 30.0 | 26.8 | 28.4 |
| 6 | --- | --- | --- | 21.5 | 19.7 | 20.4 | --- | --- | --- |
| 7 | --- | --- | --- | 23.7 | 21.2 | 22.4 | --- | --- | --- |
| 8 | --- | --- | --- | 23.0 | 19.6 | 20.5 | --- | --- | --- |
| 9 | --- | --- | --- | 20.5 | 20.2 | 20.4 | --- | --- | --- |
| 10 | --- | --- | --- | 20.5 | 19.6 | 20.0 | --- | --- | --- |
| 11 | --- | --- | --- | 21.4 | 20.5 | 21.0 | --- | --- | --- |
| 12 | 22.1 | 19.3 | 20.2 | 21.8 | 21.4 | 21.6 | --- | --- | --- |
| 13 | 22.1 | 19.4 | 20.0 | 22.1 | 21.5 | 21.7 | --- | --- | --- |
| 14 | 22.9 | 19.6 | 21.0 | 24.0 | 21.9 | 22.8 | --- | --- | --- |
| 15 | 22.6 | 21.0 | 21.7 | 24.5 | 22.3 | 22.9 | 34.7 | 33.0 | 33.8 |
| 16 | 23.1 | 21.1 | 21.9 | 26.5 | 23.8 | 25.2 | 34.0 | 32.1 | 33.2 |
| 17 | 23.7 | 21.9 | 22.8 | 27.3 | 25.4 | 26.2 | 33.5 | 31.8 | 32.8 |
| 18 | 23.6 | 21.5 | 22.2 | 28.1 | 26.2 | 27.0 | 33.2 | 31.9 | 32.5 |
| 19 | 22.4 | 20.4 | 21.6 | 28.2 | 26.2 | 27.2 | 33.7 | 32.3 | 33.0 |
| 20 | 22.0 | 19.1 | 20.8 | 28.1 | 26.0 | 26.9 | 34.7 | 32.6 | 33.6 |
| 21 | 21.6 | 20.2 | 20.8 | 27.9 | 26.6 | 27.4 | 33.7 | 32.2 | 32.8 |
| 22 | 20.5 | 18.6 | 19.3 | 27.7 | 24.7 | 26.2 | 32.6 | 31.2 | 31.9 |
| 23 | 20.2 | 18.9 | 19.6 | 27.8 | 24.4 | 26.2 | 32.4 | 30.6 | 31.6 |
| 24 | 21.9 | 20.1 | 21.0 | 28.4 | 26.8 | 27.6 | 32.9 | 30.8 | 32.0 |
| 25 | 21.9 | 20.8 | 21.5 | 29.3 | 27.0 | 28.3 | 32.7 | 31.0 | 31.9 |
| 26 | 22.1 | 19.8 | 21.0 | 29.2 | 27.8 | 28.3 | 33.2 | 31.9 | 32.5 |
| 27 | 22.7 | 20.4 | 21.7 | 28.9 | 27.1 | 27.8 | 34.5 | 31.8 | 33.2 |
| 28 | 23.7 | 21.7 | 22.8 | 29.6 | 27.9 | 28.9 | 34.4 | 32.6 | 33.1 |
| 29 | 22.0 | 18.9 | 19.8 | 29.9 | 28.2 | 29.2 | 33.2 | 31.5 | 32.5 |
| 30 | 22.4 | 20.8 | 21.5 | 30.0 | 28.1 | 29.1 | 31.5 | 30.1 | 30.5 |
| 31 | 23.3 | 19.3 | 21.3 | --- | --- | --- | 30.2 | 26.9 | 28.5 |
| Month | --- | --- | --- | 30.0 | 19.2 | 24.4 | --- | --- | --- |

Table 24. *Daily maximum, minimum, and mean water temperature at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993--Continued*

| Day | Water temperature, in degrees Celsius | | | | | | | | |
|-------|---------------------------------------|---------|------|-----------|---------|------|---------|---------|------|
| | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 29.3 | 27.9 | 28.6 | 33.1 | 31.4 | 32.3 | 18.5 | 18.2 | 18.3 |
| 2 | 30.5 | 28.7 | 29.6 | 31.4 | 30.1 | 30.6 | 18.3 | 17.5 | 18.0 |
| 3 | 30.3 | 29.0 | 29.6 | 31.0 | 28.2 | 30.1 | 17.5 | 16.8 | 17.2 |
| 4 | 30.1 | 29.0 | 29.7 | 29.2 | 26.8 | 27.2 | 16.8 | 16.5 | 16.6 |
| 5 | 30.7 | 28.9 | 29.9 | 26.9 | 26.2 | 26.4 | 17.1 | 16.3 | 16.5 |
| 6 | 30.1 | 28.7 | 29.3 | 27.7 | 25.9 | 26.5 | 18.4 | 16.7 | 17.4 |
| 7 | 29.5 | 28.0 | 28.8 | 29.2 | 26.0 | 27.0 | 19.3 | 16.6 | 18.1 |
| 8 | 28.7 | 27.5 | 28.0 | 28.9 | 27.3 | 28.0 | 19.0 | 16.5 | 17.8 |
| 9 | 29.6 | 27.8 | 28.5 | 28.7 | 26.8 | 27.9 | 17.3 | 16.1 | 16.6 |
| 10 | 29.0 | 27.6 | 28.5 | 29.3 | 27.0 | 28.3 | 16.6 | 15.8 | 16.0 |
| 11 | 29.8 | 27.8 | 28.7 | 27.0 | 26.0 | 26.3 | 18.8 | 16.2 | 17.3 |
| 12 | 29.9 | 28.0 | 28.9 | 26.0 | 25.2 | 25.5 | 18.8 | 17.8 | 18.3 |
| 13 | 30.8 | 28.6 | 29.8 | 26.5 | 24.7 | 25.6 | 18.0 | 15.7 | 17.0 |
| 14 | 29.7 | 28.4 | 29.1 | 27.7 | 25.7 | 26.6 | 18.2 | 17.4 | 17.8 |
| 15 | 30.5 | 28.0 | 29.1 | 28.6 | 26.7 | 27.7 | 18.4 | 17.4 | 18.0 |
| 16 | 31.4 | 29.3 | 30.4 | 27.4 | 26.2 | 26.9 | 17.6 | 15.4 | 16.2 |
| 17 | 32.5 | 30.0 | 31.3 | 27.6 | 25.9 | 26.7 | 17.0 | 14.7 | 15.4 |
| 18 | 31.4 | 29.7 | 30.6 | 27.0 | 25.9 | 26.5 | 18.5 | 15.9 | 17.3 |
| 19 | 31.5 | 29.7 | 30.8 | 25.9 | 25.1 | 25.3 | 18.4 | 14.9 | 17.0 |
| 20 | 32.3 | 29.9 | 31.2 | 26.1 | 25.0 | 25.6 | 16.5 | 14.6 | 15.0 |
| 21 | 31.9 | 30.1 | 30.9 | 26.0 | 24.8 | 25.5 | 15.3 | 15.0 | 15.2 |
| 22 | 30.3 | 29.2 | 29.6 | 25.5 | 24.0 | 24.8 | 15.0 | 14.8 | 14.9 |
| 23 | 30.7 | 29.1 | 30.0 | 25.5 | 23.8 | 24.7 | 15.0 | 14.7 | 14.8 |
| 24 | 31.2 | 29.2 | 30.2 | 25.1 | 24.0 | 24.5 | 14.9 | 14.6 | 14.8 |
| 25 | 31.4 | 29.6 | 30.7 | 24.1 | 23.0 | 23.5 | 14.8 | 14.4 | 14.6 |
| 26 | 31.7 | 30.0 | 30.8 | 23.4 | 21.4 | 22.2 | 14.4 | 14.0 | 14.1 |
| 27 | 32.3 | 30.3 | 31.5 | 22.4 | 20.1 | 20.6 | 14.1 | 13.9 | 14.0 |
| 28 | 32.5 | 30.8 | 31.8 | 20.1 | 19.3 | 19.7 | --- | --- | --- |
| 29 | 32.3 | 31.0 | 31.6 | 19.3 | 18.9 | 19.1 | --- | --- | --- |
| 30 | 32.7 | 30.9 | 31.9 | 18.9 | 18.5 | 18.6 | --- | --- | --- |
| 31 | 33.6 | 31.2 | 32.4 | --- | --- | --- | --- | --- | --- |
| Month | 33.6 | 27.5 | 30.1 | 33.1 | 18.5 | 25.7 | --- | --- | --- |

Table 25. Daily maximum, minimum, and mean dissolved oxygen concentrations at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993

[---, value not determined]

| Day | Dissolved oxygen concentration, in milligrams per liter | | | | | | | | |
|-------|---|---------|------|---------|---------|------|---------|---------|------|
| | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | 9.0 | 8.5 | 8.7 | 7.4 | 7.2 | 7.2 |
| 2 | --- | --- | --- | 9.4 | 8.9 | 9.1 | 8.0 | 7.2 | 7.5 |
| 3 | --- | --- | --- | 9.3 | 8.9 | 9.1 | 7.6 | 7.2 | 7.3 |
| 4 | --- | --- | --- | 9.9 | 9.2 | 9.6 | 7.7 | 7.1 | 7.3 |
| 5 | --- | --- | --- | 9.6 | 9.2 | 9.5 | 7.7 | 7.2 | 7.4 |
| 6 | --- | --- | --- | 10.3 | 9.2 | 9.7 | --- | --- | --- |
| 7 | --- | --- | --- | 9.8 | 9.2 | 9.4 | --- | --- | --- |
| 8 | --- | --- | --- | 10.0 | 9.2 | 9.6 | --- | --- | --- |
| 9 | --- | --- | --- | 9.8 | 9.3 | 9.6 | --- | --- | --- |
| 10 | --- | --- | --- | 9.4 | 9.1 | 9.2 | --- | --- | --- |
| 11 | --- | --- | --- | 9.4 | 9.1 | 9.2 | --- | --- | --- |
| 12 | 10.5 | 9.6 | 9.9 | 9.6 | 9.4 | 9.5 | --- | --- | --- |
| 13 | 10.1 | 9.6 | 9.8 | 9.9 | 9.5 | 9.6 | --- | --- | --- |
| 14 | 10.1 | 8.5 | 9.3 | 10.5 | 9.6 | 10.0 | --- | --- | --- |
| 15 | 10.1 | 8.5 | 9.4 | 10.1 | 9.5 | 9.8 | 7.7 | 7.4 | 7.6 |
| 16 | 9.9 | 8.2 | 9.1 | 10.3 | 9.4 | 9.7 | 7.6 | 7.3 | 7.4 |
| 17 | 9.7 | 8.0 | 8.9 | 10.0 | 9.2 | 9.4 | 7.7 | 7.5 | 7.6 |
| 18 | 9.6 | 8.3 | 8.7 | 9.4 | 9.1 | 9.2 | 8.0 | 7.3 | 7.7 |
| 19 | 9.5 | 7.8 | 8.7 | 9.3 | 8.7 | 8.9 | 8.0 | 7.3 | 7.7 |
| 20 | 9.3 | 7.9 | 8.5 | 8.7 | 8.2 | 8.5 | 7.8 | 7.2 | 7.4 |
| 21 | 9.2 | 7.9 | 8.4 | 8.2 | 7.9 | 8.1 | 8.6 | 7.4 | 7.7 |
| 22 | 10.0 | 8.3 | 9.3 | 8.3 | 7.8 | 8.0 | 8.4 | 7.6 | 7.9 |
| 23 | 9.8 | 8.8 | 9.3 | 8.3 | 7.8 | 8.0 | 8.4 | 7.2 | 7.7 |
| 24 | 9.7 | 8.9 | 9.2 | 8.3 | 8.1 | 8.2 | 7.3 | 7.1 | 7.2 |
| 25 | 9.8 | 8.8 | 9.2 | 8.2 | 7.9 | 8.1 | 7.4 | 7.2 | 7.3 |
| 26 | 10.4 | 8.6 | 9.3 | 8.1 | 7.8 | 7.9 | 7.3 | 6.7 | 7.0 |
| 27 | 9.6 | 9.2 | 9.4 | 8.0 | 7.6 | 7.7 | 7.9 | 6.6 | 7.1 |
| 28 | 9.4 | 9.0 | 9.2 | 7.6 | 7.4 | 7.5 | 7.9 | 7.6 | 7.8 |
| 29 | 9.9 | 9.0 | 9.4 | 7.5 | 7.2 | 7.3 | 8.4 | 7.7 | 8.0 |
| 30 | 9.6 | 9.4 | 9.5 | 7.3 | 7.1 | 7.2 | 8.1 | 7.2 | 7.7 |
| 31 | 9.6 | 8.7 | 9.3 | --- | --- | --- | 7.8 | 6.9 | 7.3 |
| Month | --- | --- | --- | 10.5 | 7.1 | 8.8 | --- | --- | --- |

Table 25. *Daily maximum, minimum, and mean dissolved oxygen concentrations at station 403155080373501, from the New Cumberland Dam (upstream) continuous-recording water-quality monitor, May to October 1993--Continued*

| Day | Dissolved oxygen concentration, in milligrams per liter | | | | | | | | |
|-------|---|---------|------|-----------|---------|------|---------|---------|------|
| | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 7.2 | 6.8 | 7.0 | 7.6 | 7.1 | 7.3 | 9.9 | 9.3 | 8.9 |
| 2 | 7.1 | 6.8 | 6.9 | 7.5 | 6.7 | 7.1 | 10.0 | 9.7 | 9.3 |
| 3 | 7.5 | 6.9 | 7.2 | 7.0 | 6.5 | 6.7 | 10.2 | 9.7 | 9.5 |
| 4 | 7.5 | 7.1 | 7.2 | 7.0 | 6.3 | 6.6 | 10.2 | 9.6 | 9.5 |
| 5 | 7.3 | 7.0 | 7.1 | 7.8 | 6.9 | 7.4 | 10.3 | 10.0 | 10.1 |
| 6 | 7.3 | 7.1 | 7.2 | 8.2 | 7.5 | 7.7 | 10.7 | 9.7 | 10.3 |
| 7 | 7.8 | 7.0 | 7.3 | 8.5 | 7.5 | 7.8 | 10.7 | 10.2 | 10.5 |
| 8 | 7.7 | 7.3 | 7.4 | 8.4 | 7.4 | 7.8 | 11.0 | 10.5 | 10.8 |
| 9 | 7.4 | 7.2 | 7.3 | 8.0 | 7.7 | 7.9 | 10.8 | 10.4 | 10.6 |
| 10 | 7.9 | 7.2 | 7.4 | 8.1 | 7.8 | 7.9 | 10.5 | 10.3 | 10.3 |
| 11 | 8.4 | 7.7 | 7.9 | 8.3 | 7.9 | 8.1 | 10.4 | 10.0 | 10.3 |
| 12 | 8.4 | 7.7 | 7.9 | 8.2 | 8.0 | 8.1 | 10.4 | 10.1 | 10.3 |
| 13 | 8.0 | 7.6 | 7.8 | 8.1 | 7.8 | 8.0 | 10.6 | 9.8 | 10.2 |
| 14 | 8.9 | 8.0 | 8.4 | 8.2 | 7.9 | 8.0 | 10.3 | 10.1 | 10.2 |
| 15 | 8.6 | 7.6 | 8.1 | 8.0 | 7.9 | 8.0 | 10.3 | 10.0 | 10.2 |
| 16 | 7.7 | 7.0 | 7.3 | 7.9 | 7.8 | 7.8 | 10.3 | 10.1 | 10.2 |
| 17 | 7.6 | 6.9 | 7.1 | 7.8 | 7.6 | 7.7 | 10.4 | 10.2 | 10.3 |
| 18 | 7.6 | 7.1 | 7.3 | 7.9 | 7.6 | 7.7 | 10.7 | 10.2 | 10.4 |
| 19 | 7.3 | 7.1 | 7.2 | 7.8 | 7.6 | 7.7 | 10.5 | 10.0 | 10.3 |
| 20 | 7.4 | 7.1 | 7.2 | 7.7 | 7.4 | 7.5 | 10.5 | 10.1 | 10.3 |
| 21 | 7.9 | 7.2 | 7.5 | 7.6 | 7.3 | 7.4 | 10.4 | 10.2 | 10.3 |
| 22 | 7.8 | 7.3 | 7.5 | 8.0 | 7.6 | 7.8 | 10.5 | 10.3 | 10.4 |
| 23 | 7.4 | 7.2 | 7.3 | 8.0 | 7.6 | 7.8 | 10.8 | 10.4 | 10.7 |
| 24 | 7.6 | 7.2 | 7.4 | 7.9 | 7.6 | 7.8 | 11.1 | 10.8 | 10.9 |
| 25 | 7.8 | 7.5 | 7.6 | 8.0 | 7.8 | 7.9 | 11.1 | 10.9 | 11.0 |
| 26 | 7.9 | 7.5 | 7.7 | 8.3 | 7.9 | 8.1 | 11.2 | 11.1 | 11.2 |
| 27 | 8.0 | 7.6 | 7.8 | 8.5 | 7.9 | 8.3 | 11.2 | 11.0 | 11.1 |
| 28 | 8.1 | 7.6 | 7.9 | 9.1 | 8.5 | 8.8 | --- | --- | --- |
| 29 | 8.0 | 7.4 | 7.7 | 9.5 | 9.0 | 9.2 | --- | --- | --- |
| 30 | 8.0 | 7.6 | 7.8 | 9.7 | 9.5 | 9.6 | --- | --- | --- |
| 31 | 7.6 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| Month | 8.9 | 6.8 | 7.5 | 9.7 | 6.3 | 7.8 | --- | --- | --- |

Table 26. *Daily maximum, minimum, and mean specific conductance at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993*

[---, value not determined]

| Day | Specific conductance, in microsiemens per centimeter at 25 degrees Celsius | | | | | | | | |
|-------|--|---------|------|---------|---------|------|---------|---------|------|
| | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | --- | --- | --- | 469 | 466 | 467 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | 455 | 450 | 453 | --- | --- | --- |
| 5 | --- | --- | --- | 456 | 451 | 454 | --- | --- | --- |
| 6 | --- | --- | --- | 465 | 456 | 462 | --- | --- | --- |
| 7 | --- | --- | --- | 463 | 450 | 460 | 458 | 448 | 453 |
| 8 | --- | --- | --- | 468 | 456 | 460 | 462 | 458 | 460 |
| 9 | --- | --- | --- | 470 | 437 | 461 | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | 479 | 458 | 475 |
| 12 | --- | --- | --- | 407 | 399 | 404 | 492 | 477 | 485 |
| 13 | --- | --- | --- | 399 | 367 | 378 | 497 | 492 | 495 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | 511 | 507 | 509 |
| 16 | --- | --- | --- | --- | --- | --- | 508 | 503 | 506 |
| 17 | --- | --- | --- | 388 | 386 | 387 | 504 | 497 | 500 |
| 18 | --- | --- | --- | 392 | 387 | 389 | 498 | 495 | 496 |
| 19 | --- | --- | --- | 406 | 392 | 399 | 502 | 496 | 499 |
| 20 | --- | --- | --- | --- | --- | --- | 503 | 501 | 502 |
| 21 | --- | --- | --- | --- | --- | --- | 503 | 499 | 501 |
| 22 | --- | --- | --- | 414 | 410 | 412 | 499 | 497 | 498 |
| 23 | --- | --- | --- | 424 | 409 | 415 | 504 | 495 | 498 |
| 24 | --- | --- | --- | 438 | 424 | 432 | 510 | 500 | 505 |
| 25 | --- | --- | --- | 441 | 437 | 439 | 518 | 510 | 513 |
| 26 | --- | --- | --- | 442 | 438 | 440 | 528 | 517 | 522 |
| 27 | --- | --- | --- | 440 | 436 | 437 | 535 | 527 | 531 |
| 28 | --- | --- | --- | 454 | 436 | 447 | 535 | 531 | 534 |
| 29 | 497 | 490 | 494 | 462 | 453 | 458 | 531 | 517 | 525 |
| 30 | --- | --- | --- | 468 | 461 | 465 | 517 | 502 | 509 |
| 31 | --- | --- | --- | --- | --- | --- | 510 | 500 | 504 |
| Month | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Table 26. Daily maximum, minimum, and mean specific conductance at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993--Continued

| Specific conductance, in microsiemens per centimeter at 25 degrees Celsius | | | | | | | | | |
|--|---------|---------|------|-----------|---------|------|---------|---------|------|
| Day | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 530 | 510 | 521 | 541 | 538 | 539 | 535 | 482 | 503 |
| 2 | 531 | 521 | 527 | 540 | 535 | 537 | 538 | 513 | 533 |
| 3 | 522 | 518 | 520 | 535 | 514 | 529 | 513 | 446 | 474 |
| 4 | 522 | 518 | 520 | 543 | 510 | 522 | 447 | 440 | 443 |
| 5 | 524 | 517 | 520 | 543 | 523 | 528 | 443 | 419 | 431 |
| 6 | 540 | 523 | 533 | 538 | 527 | 530 | 426 | 416 | 419 |
| 7 | 543 | 540 | 542 | 543 | 537 | 541 | 445 | 426 | 438 |
| 8 | 542 | 532 | 537 | 537 | 515 | 527 | 444 | 430 | 437 |
| 9 | 535 | 519 | 528 | 515 | 496 | 505 | 430 | 414 | 424 |
| 10 | 524 | 507 | 513 | 496 | 490 | 492 | 414 | 401 | 408 |
| 11 | 510 | 501 | 504 | 493 | 486 | 490 | 401 | 385 | 394 |
| 12 | 501 | 498 | 499 | 488 | 467 | 479 | 386 | 375 | 379 |
| 13 | 504 | 499 | 501 | 467 | 449 | 458 | 377 | 367 | 370 |
| 14 | 504 | 501 | 502 | 453 | 438 | 446 | 379 | 368 | 373 |
| 15 | 501 | 493 | 496 | 439 | 431 | 435 | 383 | 378 | 380 |
| 16 | 494 | 489 | 491 | 431 | 421 | 425 | 384 | 377 | 381 |
| 17 | 489 | 486 | 487 | 423 | 419 | 421 | 378 | 375 | 376 |
| 18 | 490 | 487 | 488 | 427 | 422 | 424 | 379 | 377 | 378 |
| 19 | 493 | 488 | 490 | 440 | 427 | 434 | 391 | 378 | 386 |
| 20 | 499 | 493 | 496 | --- | --- | --- | 389 | 375 | 380 |
| 21 | 501 | 497 | 499 | 455 | 449 | 451 | 412 | 382 | 399 |
| 22 | 502 | 497 | 498 | 461 | 451 | 454 | 408 | 400 | 405 |
| 23 | 510 | 500 | 505 | 475 | 461 | 469 | 402 | 390 | 398 |
| 24 | 525 | 509 | 517 | 478 | 475 | 476 | 390 | 372 | 380 |
| 25 | 535 | 525 | 529 | 493 | 477 | 485 | 391 | 383 | 388 |
| 26 | 544 | 534 | 539 | 494 | 487 | 492 | 388 | 360 | 372 |
| 27 | 550 | 543 | 547 | 487 | 455 | 468 | 363 | 354 | 357 |
| 28 | 555 | 550 | 553 | 476 | 445 | 461 | --- | --- | --- |
| 29 | 555 | 550 | 553 | 466 | 442 | 460 | --- | --- | --- |
| 30 | 551 | 543 | 547 | 482 | 437 | 455 | --- | --- | --- |
| 31 | 543 | 537 | 540 | --- | --- | --- | --- | --- | --- |
| Month | 555 | 486 | 517 | --- | --- | --- | --- | --- | --- |

Table 27. *Daily maximum, minimum, and median pH at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993*

[---, value not determined]

| Day | pH, in standard units | | | | | | | | |
|-------|-----------------------|---------|------|---------|---------|------|---------|---------|------|
| | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | --- | --- | --- | 7.3 | 7.2 | 7.3 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | 7.6 | 7.5 | 7.5 | --- | --- | --- |
| 5 | --- | --- | --- | 7.5 | 7.4 | 7.4 | --- | --- | --- |
| 6 | --- | --- | --- | 7.5 | 7.4 | 7.4 | --- | --- | --- |
| 7 | --- | --- | --- | 7.4 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 |
| 8 | --- | --- | --- | 7.6 | 7.4 | 7.5 | 7.4 | 7.3 | 7.4 |
| 9 | --- | --- | --- | 7.6 | 7.5 | 7.5 | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | 7.6 | 7.4 | 7.5 |
| 12 | --- | --- | --- | 7.3 | 7.3 | 7.3 | 7.5 | 7.3 | 7.4 |
| 13 | --- | --- | --- | 7.4 | 7.3 | 7.3 | 7.6 | 7.5 | 7.6 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | 7.8 | 7.4 | 7.6 |
| 16 | --- | --- | --- | --- | --- | --- | 7.7 | 7.6 | 7.6 |
| 17 | --- | --- | --- | 7.5 | 7.4 | 7.5 | 7.8 | 7.6 | 7.7 |
| 18 | --- | --- | --- | 7.5 | 7.4 | 7.5 | 7.8 | 7.6 | 7.8 |
| 19 | --- | --- | --- | 7.4 | 7.4 | 7.4 | 7.8 | 7.6 | 7.8 |
| 20 | --- | --- | --- | --- | --- | --- | 7.8 | 7.6 | 7.7 |
| 21 | --- | --- | --- | --- | --- | --- | 7.9 | 7.8 | 7.8 |
| 22 | --- | --- | --- | 7.3 | 7.2 | 7.2 | 7.9 | 7.8 | 7.9 |
| 23 | --- | --- | --- | 7.3 | 7.2 | 7.3 | 7.9 | 7.7 | 7.8 |
| 24 | --- | --- | --- | 7.4 | 7.3 | 7.3 | 7.8 | 7.6 | 7.7 |
| 25 | --- | --- | --- | 7.4 | 7.3 | 7.3 | 7.9 | 7.6 | 7.7 |
| 26 | --- | --- | --- | 7.4 | 7.3 | 7.3 | 7.8 | 7.6 | 7.7 |
| 27 | --- | --- | --- | 7.3 | 7.2 | 7.3 | 7.8 | 7.6 | 7.7 |
| 28 | --- | --- | --- | 7.3 | 7.2 | 7.2 | 8.0 | 7.7 | 7.9 |
| 29 | 7.6 | 7.5 | 7.6 | 7.3 | 7.2 | 7.2 | 8.1 | 7.8 | 7.9 |
| 30 | --- | --- | --- | 7.3 | 7.2 | 7.2 | 8.1 | 7.8 | 8.0 |
| 31 | --- | --- | --- | --- | --- | --- | 7.8 | 7.6 | 7.7 |
| Month | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Table 27. *Daily maximum, minimum, and median pH at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993--Continued*

| Day | pH, in standard units | | | | | | | | |
|-------|-----------------------|---------|------|-----------|---------|------|---------|---------|------|
| | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 7.7 | 7.6 | 7.6 | 7.4 | 7.2 | 7.3 | 7.5 | 7.5 | 7.5 |
| 2 | 7.6 | 7.5 | 7.6 | 7.4 | 7.3 | 7.4 | 7.6 | 7.5 | 7.5 |
| 3 | 7.6 | 7.6 | 7.6 | 7.4 | 7.3 | 7.4 | 7.6 | 7.5 | 7.5 |
| 4 | 7.6 | 7.5 | 7.6 | 7.5 | 7.3 | 7.4 | 7.6 | 7.5 | 7.6 |
| 5 | 7.6 | 7.5 | 7.5 | 7.4 | 7.3 | 7.4 | 7.6 | 7.5 | 7.6 |
| 6 | 7.6 | 7.5 | 7.6 | 7.4 | 7.3 | 7.4 | 7.6 | 7.5 | 7.5 |
| 7 | 7.6 | 7.6 | 7.6 | 7.4 | 7.3 | 7.3 | 7.6 | 7.5 | 7.5 |
| 8 | 7.7 | 7.6 | 7.6 | 7.4 | 7.3 | 7.3 | 7.6 | 7.5 | 7.5 |
| 9 | 7.7 | 7.6 | 7.6 | 7.4 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 10 | 7.7 | 7.5 | 7.6 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.5 |
| 11 | 7.6 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.4 | 7.5 |
| 12 | 7.6 | 7.5 | 7.5 | 7.6 | 7.5 | 7.5 | 7.5 | 7.4 | 7.5 |
| 13 | 7.5 | 7.4 | 7.5 | 7.6 | 7.5 | 7.6 | 7.5 | 7.4 | 7.5 |
| 14 | 7.7 | 7.5 | 7.6 | 7.7 | 7.5 | 7.6 | 7.5 | 7.5 | 7.5 |
| 15 | 7.7 | 7.5 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 |
| 16 | 7.5 | 7.4 | 7.5 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 |
| 17 | 7.5 | 7.4 | 7.4 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 |
| 18 | 7.5 | 7.4 | 7.5 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 |
| 19 | 7.6 | 7.4 | 7.5 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 |
| 20 | 7.6 | 7.5 | 7.6 | --- | --- | --- | 7.5 | 7.5 | 7.5 |
| 21 | 7.8 | 7.6 | 7.7 | 7.6 | 7.5 | 7.6 | 7.5 | 7.4 | 7.5 |
| 22 | 7.8 | 7.6 | 7.7 | 7.6 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| 23 | 7.8 | 7.6 | 7.6 | 7.5 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 24 | 7.7 | 7.6 | 7.6 | 7.4 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 25 | 7.7 | 7.5 | 7.6 | 7.4 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 26 | 7.7 | 7.5 | 7.6 | 7.4 | 7.4 | 7.4 | 7.6 | 7.5 | 7.6 |
| 27 | 7.9 | 7.5 | 7.6 | 7.4 | 7.4 | 7.4 | 7.5 | 7.5 | 7.5 |
| 28 | 7.8 | 7.5 | 7.6 | 7.5 | 7.4 | 7.5 | --- | --- | --- |
| 29 | 7.7 | 7.5 | 7.6 | 7.5 | 7.5 | 7.5 | --- | --- | --- |
| 30 | 7.6 | 7.4 | 7.5 | 7.5 | 7.5 | 7.5 | --- | --- | --- |
| 31 | 7.4 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| Month | 7.9 | 7.3 | --- | --- | --- | --- | --- | --- | --- |

Table 28. *Daily maximum, minimum, and mean water temperature at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993*

| [---, value not determined] | | | | | | | | | |
|---------------------------------------|---------|---------|------|---------|---------|------|---------|---------|------|
| Water temperature, in degrees Celsius | | | | | | | | | |
| Day | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | 32.3 | 31.6 | 31.9 |
| 16 | --- | --- | --- | --- | --- | --- | 32.1 | 30.9 | 31.3 |
| 17 | --- | --- | --- | --- | --- | --- | 31.6 | 30.6 | 31.1 |
| 18 | --- | --- | --- | --- | --- | --- | 31.4 | 30.5 | 31.0 |
| 19 | --- | --- | --- | --- | --- | --- | 31.4 | 30.5 | 30.9 |
| 20 | --- | --- | --- | --- | --- | --- | 31.9 | 31.1 | 31.5 |
| 21 | --- | --- | --- | --- | --- | --- | 31.3 | 30.7 | 30.9 |
| 22 | --- | --- | --- | --- | --- | --- | 30.7 | 30.0 | 30.3 |
| 23 | --- | --- | --- | --- | --- | --- | 30.7 | 29.5 | 30.1 |
| 24 | --- | --- | --- | --- | --- | --- | 30.6 | 29.8 | 30.2 |
| 25 | --- | --- | --- | --- | --- | --- | 30.6 | 29.9 | 30.3 |
| 26 | --- | --- | --- | --- | --- | --- | 31.1 | 30.1 | 30.6 |
| 27 | --- | --- | --- | --- | --- | --- | 31.1 | 30.3 | 30.7 |
| 28 | --- | --- | --- | --- | --- | --- | 31.2 | 30.5 | 30.8 |
| 29 | 31.8 | 30.9 | 31.4 | --- | --- | --- | 30.9 | 30.2 | 30.5 |
| 30 | --- | --- | --- | --- | --- | --- | 30.2 | 29.0 | 29.5 |
| 31 | --- | --- | --- | --- | --- | --- | 29.0 | 28.2 | 28.5 |
| Month | --- | --- | --- | --- | --- | --- | --- | --- | -- |

Table 28. *Daily maximum, minimum, and mean water temperature at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993--Continued*

| Day | Water temperature, in degrees Celsius | | | | | | | | |
|-------|---------------------------------------|---------|------|-----------|---------|------|---------|---------|------|
| | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 28.4 | 27.8 | 28.1 | 31.1 | 30.3 | 30.8 | 19.8 | 19.3 | 19.6 |
| 2 | 28.6 | 28.2 | 28.4 | 30.3 | 29.3 | 29.6 | 19.7 | 18.9 | 19.4 |
| 3 | 28.6 | 28.1 | 28.4 | 29.5 | 28.2 | 29.2 | 18.9 | 18.2 | 18.5 |
| 4 | 28.8 | 28.3 | 28.5 | 28.2 | 27.6 | 27.9 | 18.3 | 17.7 | 18.0 |
| 5 | 28.7 | 28.0 | 28.4 | 27.7 | 26.8 | 27.2 | 18.5 | 17.8 | 18.0 |
| 6 | 28.4 | 27.5 | 28.0 | 27.0 | 26.5 | 26.8 | 18.3 | 17.8 | 18.1 |
| 7 | 28.2 | 27.4 | 27.8 | 27.8 | 26.7 | 27.3 | 18.6 | 17.5 | 18.1 |
| 8 | 27.9 | 27.3 | 27.6 | 27.8 | 26.9 | 27.2 | 18.6 | 17.7 | 18.2 |
| 9 | 27.8 | 27.2 | 27.5 | 27.2 | 26.5 | 26.9 | 18.3 | 17.4 | 17.8 |
| 10 | 27.9 | 27.0 | 27.5 | 27.3 | 26.5 | 26.9 | 17.5 | 16.8 | 17.2 |
| 11 | 28.2 | 27.5 | 27.8 | 26.5 | 25.3 | 25.9 | 17.8 | 17.0 | 17.4 |
| 12 | 28.2 | 27.4 | 27.8 | 25.3 | 24.8 | 25.1 | 18.3 | 17.5 | 17.8 |
| 13 | 28.8 | 27.7 | 28.3 | 25.2 | 24.7 | 25.0 | 17.7 | 17.1 | 17.2 |
| 14 | 28.5 | 27.9 | 28.2 | 26.0 | 25.0 | 25.5 | 17.5 | 17.1 | 17.4 |
| 15 | 28.7 | 27.8 | 28.3 | 26.7 | 25.8 | 26.2 | 17.7 | 17.2 | 17.4 |
| 16 | 29.6 | 28.3 | 28.8 | 26.1 | 25.3 | 25.7 | 17.4 | 16.1 | 16.5 |
| 17 | 29.8 | 28.9 | 29.5 | 25.7 | 25.0 | 25.4 | 16.9 | 15.9 | 16.2 |
| 18 | 29.5 | 28.5 | 28.9 | 25.7 | 25.1 | 25.4 | 17.5 | 16.2 | 16.9 |
| 19 | 29.6 | 28.7 | 29.2 | 25.1 | 24.5 | 24.7 | 17.4 | 16.5 | 17.0 |
| 20 | 30.0 | 29.1 | 29.5 | --- | --- | --- | 16.7 | 16.1 | 16.5 |
| 21 | 30.0 | 29.0 | 29.3 | 24.6 | 23.9 | 24.4 | 17.2 | 16.4 | 16.7 |
| 22 | 29.0 | 28.4 | 28.6 | 24.3 | 23.6 | 23.9 | 16.7 | 16.1 | 16.4 |
| 23 | 29.1 | 28.3 | 28.7 | 23.8 | 23.1 | 23.5 | 16.5 | 15.9 | 16.3 |
| 24 | 29.3 | 28.4 | 28.9 | 23.8 | 23.1 | 23.4 | 16.6 | 15.8 | 16.2 |
| 25 | 29.8 | 29.0 | 29.4 | 23.2 | 22.5 | 22.8 | 16.5 | 15.8 | 16.3 |
| 26 | 29.7 | 29.2 | 29.5 | 22.6 | 22.1 | 22.3 | 16.3 | 15.5 | 15.9 |
| 27 | 30.2 | 29.3 | 29.8 | 22.2 | 21.6 | 21.8 | 16.0 | 15.3 | 15.6 |
| 28 | 30.5 | 29.7 | 30.2 | 21.6 | 20.8 | 21.3 | --- | --- | --- |
| 29 | 30.6 | 30.0 | 30.3 | 20.8 | 20.1 | 20.5 | --- | --- | --- |
| 30 | 30.8 | 29.8 | 30.3 | 20.5 | 19.8 | 20.0 | --- | --- | --- |
| 31 | 31.1 | 30.0 | 30.6 | --- | --- | --- | --- | --- | --- |
| Month | 31.1 | 27.0 | 28.8 | --- | --- | --- | --- | --- | --- |

Table 29. *Daily maximum, minimum, and mean dissolved oxygen concentrations at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993*

[---, value not determined]

| Day | Dissolved oxygen concentration, in milligrams per liter | | | | | | | | |
|-------|---|---------|------|---------|---------|------|---------|---------|------|
| | May | | | June | | | July | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | --- | --- | --- | --- | --- | --- | 7.9 | 7.6 | 7.8 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | 9.4 | 9.2 | 9.3 | --- | --- | --- |
| 5 | --- | --- | --- | 9.4 | 9.2 | 9.3 | --- | --- | --- |
| 6 | --- | --- | --- | 9.5 | 9.2 | 9.4 | --- | --- | --- |
| 7 | --- | --- | --- | 9.3 | 9.0 | 9.2 | 8.5 | 8.2 | 8.3 |
| 8 | --- | --- | --- | 9.5 | 9.1 | 9.3 | 8.5 | 8.2 | 8.4 |
| 9 | --- | --- | --- | 9.3 | 8.9 | 9.0 | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | 8.6 | 7.5 | 8.3 |
| 12 | --- | --- | --- | 9.1 | 9.0 | 9.1 | 8.0 | 6.9 | 7.6 |
| 13 | --- | --- | --- | 9.2 | 9.0 | 9.1 | 8.2 | 7.9 | 8.0 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | 9.0 | 7.8 | 8.3 |
| 16 | --- | --- | --- | --- | --- | --- | 8.7 | 8.2 | 8.5 |
| 17 | --- | --- | --- | 8.8 | 8.5 | 8.7 | 8.9 | 8.3 | 8.6 |
| 18 | --- | --- | --- | 8.7 | 8.5 | 8.6 | 9.0 | 8.4 | 8.7 |
| 19 | --- | --- | --- | 8.5 | 8.2 | 8.4 | 8.8 | 8.3 | 8.6 |
| 20 | --- | --- | --- | 8.4 | 8.2 | 8.3 | 8.7 | 8.3 | 8.5 |
| 21 | --- | --- | --- | --- | --- | --- | 8.8 | 8.4 | 8.6 |
| 22 | --- | --- | --- | 8.5 | 8.0 | 8.4 | 8.9 | 8.5 | 8.7 |
| 23 | --- | --- | --- | 8.6 | 8.3 | 8.5 | 9.0 | 8.2 | 8.7 |
| 24 | --- | --- | --- | 8.6 | 8.3 | 8.5 | 8.6 | 8.1 | 8.3 |
| 25 | --- | --- | --- | 8.5 | 8.1 | 8.3 | 8.6 | 8.0 | 8.3 |
| 26 | --- | --- | --- | 8.4 | 8.1 | 8.3 | 8.2 | 7.2 | 7.8 |
| 27 | --- | --- | --- | 8.4 | 8.0 | 8.3 | 7.8 | 6.9 | 7.4 |
| 28 | --- | --- | --- | 8.2 | 7.8 | 8.0 | 8.1 | 7.3 | 7.7 |
| 29 | 8.2 | 7.9 | 8.0 | --- | --- | --- | 8.0 | 7.7 | 7.9 |
| 30 | --- | --- | --- | 7.8 | 7.6 | 7.7 | 8.0 | 7.7 | 7.9 |
| 31 | --- | --- | --- | --- | --- | --- | 8.1 | 7.6 | 7.8 |
| Month | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Table 29. Daily maximum, minimum, and mean dissolved oxygen concentrations at station 403133080372801, from the New Cumberland Dam (downstream) continuous-recording water-quality monitor, May to October 1993--Continued

| Dissolved oxygen concentration, in milligrams per liter | | | | | | | | | |
|---|---------|---------|------|-----------|---------|------|---------|---------|------|
| Day | August | | | September | | | October | | |
| | Maximum | Minimum | Mean | Maximum | Minimum | Mean | Maximum | Minimum | Mean |
| 1 | 8.0 | 7.6 | 7.8 | 7.3 | 6.8 | 7.1 | 10.5 | 9.9 | 10.1 |
| 2 | 7.7 | 7.6 | 7.6 | 7.3 | 6.9 | 7.1 | 10.5 | 10.4 | 10.5 |
| 3 | 7.8 | 7.6 | 7.7 | 7.2 | 6.7 | 7.0 | 10.7 | 10.5 | 10.6 |
| 4 | 7.9 | 7.5 | 7.7 | 7.4 | 6.8 | 7.2 | 10.6 | 10.4 | 10.5 |
| 5 | 7.8 | 7.3 | 7.6 | 7.7 | 7.2 | 7.5 | 10.7 | 10.4 | 10.5 |
| 6 | 7.9 | 7.6 | 7.8 | 7.8 | 7.5 | 7.8 | 10.7 | 10.5 | 10.6 |
| 7 | 7.9 | 7.5 | 7.7 | 7.9 | 7.6 | 7.8 | 10.8 | 10.6 | 10.7 |
| 8 | 8.0 | 7.4 | 7.7 | 8.3 | 7.7 | 7.9 | 10.9 | 10.6 | 10.7 |
| 9 | 8.2 | 7.5 | 7.8 | 8.3 | 7.9 | 8.1 | 10.8 | 10.6 | 10.7 |
| 10 | 8.5 | 7.4 | 7.9 | 8.3 | 7.9 | 8.1 | 10.8 | 10.6 | 10.7 |
| 11 | 8.5 | 8.1 | 8.4 | 8.4 | 8.1 | 8.3 | 10.8 | 10.5 | 10.6 |
| 12 | 8.5 | 8.0 | 8.3 | 8.6 | 8.0 | 8.3 | 10.7 | 10.5 | 10.6 |
| 13 | 8.3 | 7.8 | 8.1 | 8.6 | 8.2 | 8.4 | 10.9 | 10.6 | 10.7 |
| 14 | 8.5 | 8.1 | 8.3 | 8.5 | 7.9 | 8.2 | 10.8 | 10.6 | 10.7 |
| 15 | 8.5 | 7.9 | 8.2 | 8.3 | 8.0 | 8.2 | 10.8 | 10.6 | 10.7 |
| 16 | 8.0 | 7.6 | 7.9 | 8.3 | 8.1 | 8.2 | 11.0 | 10.7 | 10.9 |
| 17 | 7.9 | 7.6 | 7.7 | 8.3 | 8.0 | 8.2 | 11.0 | 10.7 | 10.9 |
| 18 | 8.0 | 7.6 | 7.8 | 8.3 | 8.0 | 8.2 | 10.9 | 10.6 | 10.8 |
| 19 | 7.9 | 7.5 | 7.7 | 8.5 | 8.2 | 8.3 | 10.9 | 10.6 | 10.8 |
| 20 | 7.8 | 7.3 | 7.6 | --- | --- | --- | 11.0 | 10.7 | 10.9 |
| 21 | 8.0 | 7.5 | 7.8 | 8.7 | 8.1 | 8.4 | 10.9 | 10.7 | 10.8 |
| 22 | 8.2 | 7.6 | 7.9 | 9.0 | 8.6 | 8.8 | 11.0 | 10.9 | 10.9 |
| 23 | 8.4 | 7.4 | 7.8 | 8.9 | 8.5 | 8.7 | 11.2 | 10.9 | 11.1 |
| 24 | 8.4 | 7.4 | 7.9 | 8.9 | 8.5 | 8.8 | 11.2 | 11.0 | 11.1 |
| 25 | 8.4 | 7.8 | 8.1 | 8.9 | 8.6 | 8.8 | 11.2 | 11.0 | 11.1 |
| 26 | 8.6 | 7.6 | 8.0 | 9.0 | 8.7 | 8.9 | 11.2 | 11.1 | 11.1 |
| 27 | 8.8 | 7.7 | 8.0 | 9.2 | 8.9 | 9.1 | 11.2 | 11.0 | 11.1 |
| 28 | 8.2 | 7.5 | 7.9 | 9.6 | 9.2 | 9.4 | --- | --- | --- |
| 29 | 8.2 | 7.6 | 7.9 | 9.8 | 9.6 | 9.7 | --- | --- | --- |
| 30 | 8.4 | 7.3 | 7.8 | 10.0 | 9.8 | 9.9 | --- | --- | --- |
| 31 | 7.6 | 6.9 | 7.3 | --- | --- | --- | --- | --- | --- |
| Month | 8.8 | 6.9 | 7.9 | --- | --- | --- | --- | --- | --- |

CONVERSION FACTORS AND ABBREVIATIONS

| Multiply | By | To obtain |
|--------------------------------|--------|---------------------|
| inch (in.) | 25.4 | millimeter |
| foot (ft) | 0.3048 | meter |
| foot per mile (ft/mi) | 0.1894 | meter per kilometer |
| mile (mi) | 1.609 | kilometer |
| square mile (mi ²) | 2.590 | square kilometer |

Temperature is given in degrees Celsius ($^{\circ}\text{C}$), which can be converted to degrees Fahrenheit ($^{\circ}\text{F}$) by use of the following equation:

$$\text{F} = 1.8(^{\circ}\text{C}) + 32$$

River Mile: A unit of length applied to the main stem of a river to denote location. Typically, the mouth of a river is designated river mile zero and river mile length is measured upstream from this point. River mile zero on the Ohio River has been designated as the river's origin in Pittsburgh, Pa., however, and river mile length is measured downstream from this point.

Abbreviated water-quality units used in this report: Chemical concentrations and water temperature are given in metric units. Chemical concentration is given in grams per liter (g/L), milligrams per liter (mg/L), or micrograms per liter ($\mu\text{g/L}$). Milligrams per liter is a unit expressing the concentration of chemical constituents in solution as weight (milligrams) of solute per unit volume (liter) of water. One thousand milligrams per liter is equivalent to one gram per liter. One thousand micrograms per liter is equivalent to one milligram per liter. For concentrations less than 7,000 mg/L, the numerical value is the same as for concentrations in parts per million.

Specific conductance of water is expressed in microsiemens per centimeter at 25 degrees Celsius ($\mu\text{S/cm}$). This unit is equivalent to micromhos per centimeter at 25 degrees Celsius ($\mu\text{mho/cm}$), formerly used by the U.S. Geological Survey.